

# Payment behaviour in Germany in 2023

Last updated: December 2024

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## Preface

Dear reader,

This is the Bundesbank's seventh study examining the payment behaviour of the population in Germany. We began conducting these regular surveys in 2008, asking members of the public about their attitudes to various means of payment and recording how people pay for goods and services – be it by cash, card or other means of payment.

The data gathered from these surveys provide valuable guidance and serve as a basis for decision-making – not only here at the Bundesbank, but also for the banking industry, retailers and the cash-in-transit sector. Over the last 15 years, payment behaviour has shifted towards increased use of cashless means of payment. And this change is borne out by the latest study, too. Cards, along with mobile payment methods and e-payment methods, are growing more and more popular. You might say that the study essentially paints a numerical picture of the digital transformation currently under way.

With payments becoming ever more digitalised, we in the Eurosystem have begun work to develop a digital euro. This would give the population access to central bank money not only in the shape of cash, but also in digital form. In addition, the digital euro offers an all-in-one solution for payments in stores, online and between individuals throughout the euro area, and is free of charge for consumers.

We have a greater variety of means of payment at our disposal nowadays than we did a few years ago. I see this diversity as a welcome development, promoting innovation and competition in the payments space. It allows people to pay however they prefer. In addition, a wide range of reliable means of payment makes payments more robust and crisis-resilient overall.

Instant payments are making transactions even faster. An EU regulation will guarantee consumers broad access to these real-time credit transfers in the future. Funds reach the recipient's account in just a few seconds – and they cost the same as conventional credit transfers.

At the same time, we in the Eurosystem want to make sure cash remains available as a cost-effective and efficient means of payment as we head into the future, too. Cash still has a large number of supporters and users, and – as this study shows – has once again claimed the top spot as the most widely used means of payment at the point of sale in Germany. However, the results also show that people are finding cash increasingly hard to access. Quite a few respondents expect cash to gradually disappear from everyday life.

With this in mind, I expressly welcome the proposal for a regulation published by the European Commission last June. This proposal provides, among other things, for regular analysis of the state of play with regard to access to and acceptance of cash in the EU Member States. Another measure worthy of note is the National Cash Forum. Established at the beginning of this year on the Bundesbank's initiative, the forum is designed to strengthen contact between the various players in the cash cycle. In addition, the Eurosystem is currently in the process of planning a new, third series of euro banknotes.

Whether cash or cashless – you will continue to have the freedom to choose how you want to pay in the future.

I hope this study proves to be an interesting and informative read!

Frankfurt am Main, July 2024



Burkhard Balz  
Member of the Executive Board of the Deutsche Bundesbank



Slightly more than half of all payments are made using cash (51%).



The share of mobile payments has tripled (from 2% to 6%).



44% of respondents generally prefer to pay using electronic means of payment; 24% favour cash.



80% of respondents already have access to instant credit transfers.

## Summary

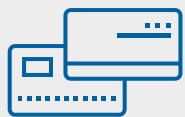
- **Payment behaviour according to the payments diary:** As in 2021, cash remains the most frequently used means of payment in 2023. More than half of transactions (51%) are still paid in cash, representing just over one-quarter of total expenditure (26%). Overall, however, cash use has continued to decline. Higher prices are likely to have been one of the factors here. Debit cards are the most commonly used cashless means of payment and now account for just over one-third of total expenditure, followed by credit transfers and direct debits (20%) and credit cards (10%). Mobile payment methods exhibit high growth rates, especially among younger respondents.
- **Acceptance:** Cash is still accepted in the vast majority of payment transactions at physical points of sale and is accepted more frequently than cashless means of payment overall. Compared with 2021, however, acceptance has declined. By contrast, acceptance of cashless means of payment has risen by 20 percentage points since the coronavirus pandemic in 2021: cards or other cashless means of payment were accepted for payment at physical points of sale in 81% of cases.
- **Shopping and paying online:** While more and more respondents are using the internet to shop, the share of online purchases in respondents' total spending has gone back down slightly compared with 2021. Respondents use PayPal, Klarna, Amazon Pay or giro pay/paydirekt for most payments on the internet. The largest share of turnover is paid by direct debit or credit transfer.
- **Current accounts:** Almost all respondents have a current account. Accounts with a savings bank or Landesbank are the most commonly held, followed by accounts with cooperative banks. Direct banks are becoming more popular among those aged 25 to 34. 81% of all internet users use online banking facilities. Younger people prefer apps whilst older people prefer to access their account by using the website portal of their bank or savings bank. So far, only a few respondents can see themselves holding an account with an internet firm such as Google, Apple, Facebook or Amazon.
- **Cash:** As in previous years, the amount of cash kept in a person's wallet amounts to around €100. By contrast, cash holdings held at home are slightly up on their 2021 levels. Res-



The majority of respondents would like to continue to be able to pay using cash in the future.



Cash is accepted in 94% of all transactions at physical payment locations, but this is trending downwards.



Cashless means of payment are accepted in 81% of all transactions at physical payment locations; acceptance has increased by 20 percentage points compared with 2021.



Accessing ATMs and bank counters has become more difficult for many people.

pondents cover the majority of their cash needs by visiting ATMs, but bank counters and the point of sale gained slightly in importance as withdrawal points compared with 2021. Significantly more respondents report that it is difficult for them to get to an ATM or bank counter than in 2021, with clear differences apparent between the groups of institutions.

- **Debit and credit cards:** Almost all respondents have a debit card. In most cases, this is a girocard. Approximately half of the respondents have a credit card, with ownership slightly down on previous levels. Card payments are mostly contactless, preparing the way for contactless payments via smartphone. Although the numbers of debit and credit cards saved in digital wallets are similar to what they were in 2021, people are using them significantly more frequently to pay.
- **Web and app-based payment methods/digital wallets:** PayPal remains the most well-known web and app-based payment method, followed by Klarna and the digital wallet offerings of Google and Apple as well as banks and savings banks. 27% of smartphone owners have used their mobile device to pay at the point of sale before. 40% of mobile payers typically use Apple Pay for this. Those who have not started using these kinds of wallets to make payments in shops do not see any need for it yet or have concerns around security. Especially the argument that they might be complicated to use is becoming less significant.
- **Crypto tokens:** These continue to play only a minor role. Only 6% of respondents have ever purchased such tokens and use them to invest or pay.
- **Instant credit transfers:** From 2025 on, SEPA instant credit transfers will have to be available across the board and priced the same as SEPA standard credit transfers. 80% of respondents say they are already able to use instant credit transfers.
- **Preferred means of payment:** Most people now prefer cashless means of payment. However, cash is still popular with many. According to respondents, the most important benefits of cash are that it protects their privacy (63%), that payments are reliably settled straightaway (47%) and that it provides a good overview of spending (41%). By contrast, convenience is seen primarily as an advantage of paying by card.

- **The future of cash:** Cash is an important means of payment, even if the share of cash payments is steadily declining. Overall, a majority of the population would like to continue using cash in the future, but at the same time expects a further decline in cash use.
- **Trust in the way data is handled and what people want from new payment methods:** Most respondents trust their own bank or savings bank to process their payment data responsibly. Confidence in start-ups/fintech companies and tech firms remains low but is growing. When it comes to new payment methods, 45% of respondents would use them if they offered higher security standards. 28% would be encouraged to try out new means of payment if they offered greater privacy.

## 1 Introduction

The “Payment behaviour in Germany” study series provides a comprehensive picture of the use of cash and cashless means of payment at the physical point of sale, in online retail and between individuals. It also examines familiarity with and ownership of various means of payment as well as consumers’ attitudes towards them. This gives us valuable insights into future developments in the payments space. Since its launch 15 years ago, the series has been documenting the impact of technological and social developments on the payment behaviour of people in Germany.

The studies help the Bundesbank to fulfil its statutory mandate with regard to cash and cashless payments.<sup>1</sup> To develop strategic objectives and derive concrete measures on the basis of the statutory task conferred upon it, the Bundesbank needs a sound foundation of empirical data. This data needs to be collected in accordance with rigorous academic standards and has to be objective. The Bundesbank’s “Payment behaviour in Germany” series creates this corpus of data and makes the results available to all market participants in cash and cashless payments, political decision-makers and any interested members of the public.

The last study in the series, conducted in 2021, was heavily influenced by the consequences of the coronavirus pandemic. The share of transactions made in cash fell significantly faster than in previous years, even though cash was still being used most frequently. Those who had changed their payment behaviour in the wake of the pandemic generally ruled out a return to previous payment habits. Instead, respondents paid significantly more frequently by debit or credit card in bricks-and-mortar retail settings, mostly contactlessly. By contrast, mobile payment methods had not yet found broad uptake among the population. Shopping habits had also changed. Online commerce experienced a boom and quadrupled its share of all transactions recorded compared with 2017. However, half of all respondents who had been shopping online more frequently since the start of the pandemic wanted to return to physical stores once coronavirus restrictions were lifted.

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<sup>1</sup> See Section 3 of the Bundesbank Act (Gesetz über die Deutsche Bundesbank) on the Bank’s statutory mandate with regard to cash and cashless payments.



**The present study examines the situation after the coronavirus pandemic.** Do people still shop online as often as they did in 2021, or have they returned to local stores, restaurants, cafés and recreational facilities? Is the trend of declining cash use continuing or has the share of cash payments stabilised now that the pandemic is over? Will mobile payment methods continue to gain popularity at the point of sale?

**On top of the pandemic, the general price level began to rise sharply in the second half of 2021.** From mid-2022, the Governing Council of the European Central Bank responded to this with several significant hikes to the key interest rates. These developments are also likely to have had an impact on consumption and saving habits.

**The marked decline in day-to-day cash use during the pandemic has drawn attention to the question of what the future of cash will look like in the long term.** Together with the other Eurosystem central banks, the Bundesbank aims to make sure that euro cash remains generally available and accepted as a means of payment and store of value.<sup>2</sup> However, a study published by the Bundesbank<sup>3</sup> that constructs possible scenarios for cash up to 2037 concludes that a future which involves cash should not be taken for granted. Restrictions on access to and acceptance of cash already visible today could jeopardise freedom of choice between cash and cashless means of payment in the long term. With this in mind, the present study takes a particularly close look at issues around access to and acceptance of cash. In addition, respondents were surveyed about their expectations and wishes regarding the future role of cash.

**With a view to enhancing the electronic payments landscape in Europe, the Eurosystem published a revised retail payments strategy<sup>4</sup> in 2023.** Amongst other things, the updated strategy advocates for a pan-European payment solution in retail and the establishment of instant payments as the standard for electronic payments. The increasing geopolitical uncertainties of recent years have also reinforced the desire for greater European autonomy and resilience in payments. This study series provides a valuable database in that regard, as it involves questions on both the market coverage of international payment methods and the availability of instant payments.

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<sup>2</sup> See [European Central Bank \(n.d.\), The Eurosystem cash strategy](#).

<sup>3</sup> See [Ehrenberg-Sillies et al. \(2024\), Bargeld der Zukunft, Deutsche Bundesbank](#).

<sup>4</sup> See [European Central Bank \(2023\), The Eurosystem's retail payments strategy – priorities for 2024 and beyond](#).

**The surveys thus complement the picture revealed by statistical data such as from payments statistics.**<sup>5</sup> When it comes to cash payments, many transactions go unrecorded due to the innate anonymity of cash. This makes consumer surveys a valuable source of data concerning the use of cash as a means of payment. A major advantage of the survey results compared with aggregate statistical data is that detailed socio-demographic data, as well as information on the possession of means of payment and attitudes towards the use of payment methods are collected from all respondents. As payment behaviour gradually diversifies, it is possible, for example, to analyse in more detail which consumers adopt new payment solutions at an early stage and which groups of people prefer cash despite having access to cashless means of payment. This knowledge helps greater account to be taken of the needs and requirements of these groups of people when developing payment strategies and measures. The picture is completed by the European Central Bank's Study on the payment attitudes of consumers in the euro area (SPACE).<sup>6</sup> It allows for a direct comparison between the results of the Bundesbank's "Payment behaviour in Germany" study series and data from all euro area countries.

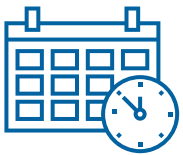
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<sup>5</sup> See [European Central Bank, ECB Data Portal | Payments transactions \(key indicators\) – PAY](#).

<sup>6</sup> See [European Central Bank \(n.d.\), Study on the payment attitudes of consumers in the euro area \(SPACE\)](#).



Regular studies on payment behaviour in Germany since 2008



Survey period from 4 September to 30 November 2023



The results were weighted to ensure that the results are representative of the German-speaking population aged 18 and above.

## 2 Study design

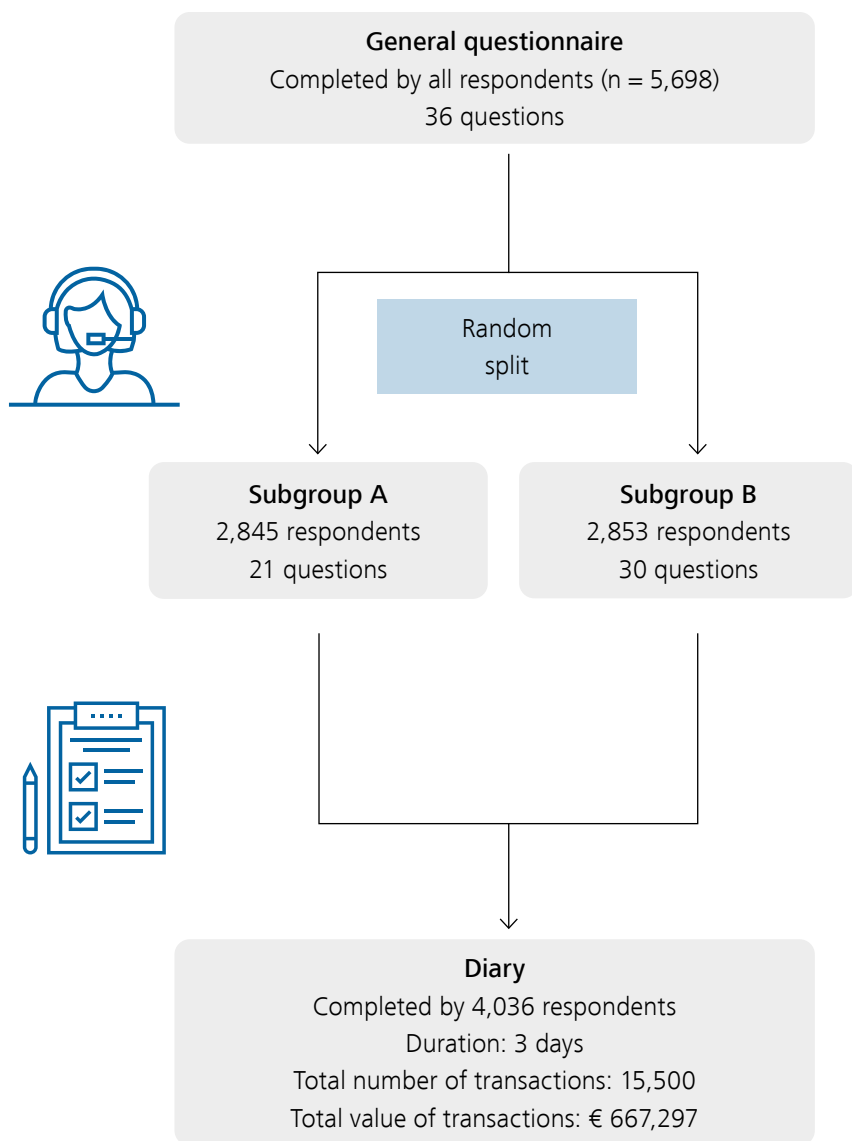
Since 2008, the Bundesbank has been conducting regular studies on payment behaviour in Germany. Telephone interviews<sup>7</sup> have been the basis of the survey since 2020. The data for 2008, 2011, 2014 and 2017 were gathered by means of computer-assisted personal interviews (CAPIs). In 2020, an interim survey of payment behaviour during the coronavirus pandemic was conducted with a reduced scope. Owing to the social distancing measures introduced to combat the pandemic, half of the interviews were conducted over the phone (computer-assisted telephone interview or CATI) and half were conducted online. Given the ongoing pandemic situation, the 2021 survey took a fully CATI approach. The present study sees the Bundesbank continuing this series as a CATI survey.

**The survey is representative of the German-speaking population aged 18 and above in the Federal Republic of Germany.** Over the period from 4 September to 30 November 2023, the market research institute forsa conducted a total of 5,698 telephone interviews on behalf of the Bundesbank. Respondents were selected by applying a random sample approach using multivariate stratification based on the ADM sampling system for telephone surveys<sup>8</sup> (dual frame approach) and birthday method.<sup>9</sup> Different selection probabilities resulting from the dual-frame approach were offset using design weights. The sample then underwent structural weighting, adjusting it to align with official statistics in terms of age, gender, level of education and place of residence of the respondents. The random selection and subsequent weighting mean that the study is representative of the German-speaking population aged 18 and above. All analysis is based on the weighted data.

<sup>7</sup> For more information on the study series, see [www.bundesbank.de/paymentbehaviour](https://www.bundesbank.de/paymentbehaviour).

<sup>8</sup> As there is no complete list of private telephone numbers in the Federal Republic of Germany, participating survey institutions can use the ADM sampling system for telephone surveys. This makes it possible to draw, in principle, on all usable landline telephone numbers in Germany for survey activities. In addition, the dual-frame approach means that it is possible to include those who are only reachable via mobile telephone, too. Source: Arbeitsgemeinschaft ADM-Stichproben – ADM e.V. ([adm-ev.de](https://adm-ev.de)).

<sup>9</sup> Using the birthday method means that the household member who most recently had their birthday is selected to participate.



Telephone interviews

Completed independently online  
or information gathered by telephone

**Participants responded to a questionnaire and then kept a payments diary.** The questionnaire is used to record access to and possession of cash and cashless means of payment as well as respondents' attitudes to different means of payment. It consists of two sections: a general section received by all respondents and some more in-depth questions for which the participants were randomly split into two groups. Subgroup A received mainly questions on the subject of cash, while subgroup B had questions focusing on electronic payment methods. Following the interviews, respondents were asked to record their day-to-day payment transactions, including location and means of payment, over a period of three days. Participants could either record their expenditure themselves in an online diary or, if this was not possible, convey the information by telephone. To ensure that all days throughout the week were covered as evenly as possible, respondents were randomly assigned the start date for recording their transactions.

**The diaries document actively initiated, one-off payments at physical points of sale, in online retail settings and between individuals predominantly in Germany, and in some cases abroad.** These include, for example, cash payment when shopping at a supermarket, mobile payment via app at the petrol station, the use of a payment card at a restaurant or a direct debit when buying something online. The diaries also capture payments at vending and ticketing machines, to charitable causes or to offices of public authorities. All of the transactions recorded in the diaries share one thing in common: the respondent makes a fresh decision each time as to what means of payment they are going to use. By contrast, in the case of regularly recurring payments – such as rent payments set up as a standing order or electricity and gas bills paid by direct debit – the means of payment is already fixed in advance. Such payments are therefore disregarded for the purpose of ascertaining the population's payment preferences.<sup>10</sup>

**The present study report follows a consistent format so as to give the reader a clear picture of payment behaviour in 2023.** In the main body of the text, you will find summary graphics on the left-hand side displaying participants' responses. Selected breakdowns of responses by socio-demographic characteristics, such as age, income and gender, can be found in the Annex, collated by their respective chapters. Each figure or

<sup>10</sup> Information on regular payments was collected in the survey by means of a separate questionnaire, which is not analysed in the present report.

table number begins with the number of the Chapter that it belongs to. Figures in the Annex are numbered with a preceding letter "A". The figures show the weighted number of those respondents who answered that particular question as "n = number".

## Cash carried in wallets

Tab. 3.1.1

As recorded in payments diary

	2014	2017	2021	2023
Average amount of cash in wallet (€)	103	107	100	103
of which coins (€)	6	6	6	5
Average number of banknotes	5	5	4	4
Average number of coins	14	16	14	12
No cash in wallet (percentage of respondents)	1	2	4	4
No banknotes in wallet (percentage of respondents)	4	4	9	9
No coins in wallet (percentage of respondents)	6	3	9	15

Basis: All respondents with a payments diary.

Question: "What euro coins and euro banknotes did you have in your wallet/on your person at the beginning of the day?"

Note: Respondents without cash holdings are included in the calculation of averages with a value of 0.

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## 3 Spotlight on cash

### 3.1 Cash holdings

**Respondents have an average of €103 in their wallets.** There has been hardly any change in this figure between 2014 and 2023 (*see Table 3.1.1*). However, taking into account inflation over this period, the real value of the cash carried has fallen. According to the payments diary, respondents spent an average of €43 per day in 2017, meaning that the cash holdings were sufficient for two and a half days. Spending per day averaged €52 in 2021, and rose to €57 in the latest survey round. This means that, on average, respondents have enough in their wallets to cover less than two days' worth of expenditure.

**Looked at against 2017, there are signs of shifts in the distribution of cash holdings.**

While the proportion of respondents with €150 or more in their wallets remained almost constant (23%, up 1 percentage point compared with 2017), amounts between €50 and €150 are carried less often (40%, down 6 percentage points). At the same time, more respondents report having only small sums of less than €50 in cash on them (37%, up 5 percentage points). Nevertheless, almost all respondents carry cash with them. Only 4% of people say they do not have any banknotes or coins in their wallets. With a share of 8%, the 18 to 34 age group most often does without cash. As a proportion of all respondents, 9% report that they do not carry any banknotes. This figure is as high as 21% for those under 35 years of age.

**The proportion of respondents without coins in their wallets has increased significantly.**

It rose from 3% in 2017 to 15% in 2023. Unlike banknotes, respondents in all age groups are equally likely to dispense with coins. Up to 2021, the average value of coins carried stood at €6; it fell to €5 in 2023.

**On average, respondents have four banknotes and twelve coins in their wallets.** The majority of banknotes are small and medium denominations ranging from €5 to €50 (*see Table 3.1.2*). On average, respondents have one of each in their wallets. Only a small number of respondents carry high denomination banknotes (€100, €200, €500). A look at the loose change section of people's wallets reveals that 1 cent and 2 cent coins feature the most

## Cash carried in wallets broken down by denomination of banknotes and coins

Tab. 3.1.2

	Average number of each denomination	Percentage of respondents with each denomination
<b>Banknotes</b>		
5 euro	1.0	52
10 euro	1.1	57
20 euro	1.1	57
50 euro	0.9	47
100 euro	0.1	8
200 euro	0.0	1
500 euro	0.0	0
Total	4.3	
<b>Coins</b>		
1 cent	2.1	54
2 cent	1.8	51
5 cent	1.3	47
10 cent	1.4	52
20 cent	1.6	55
50 cent	1.1	52
1 euro	1.4	61
2 euro	1.4	59
Total	12.0	

Basis: All respondents with a payments diary (n = 4.035).

Question: "What euro coins and euro banknotes did you have in your wallet/on your person at the beginning of the day?"

Note: Respondents without cash holdings are included in the calculation of averages with a value of 0.

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commonly, with each person carrying two of them on average. The 50 cent piece is the least common coin, working out at 1.1 per wallet.

**The average amount of cash a person keeps outside their wallet has risen by around €100 to €573.** Compared with 2021, both the share of respondents holding cash and the amounts being held have increased ([see Table A.3.1.3](#)). 40% of respondents say they have additional cash reserves outside their wallets (up 4 percentage points). The amounts kept are still very unevenly distributed. As in 2021, 75% of those with cash reserves hold €1,000 or less. By contrast, in the upper quartile of the distribution, higher amounts are being reported than was the case two years ago. Respondents who have cash reserves hold on average €1,417 (up €104). The values cited can be regarded as a lower bound for cash holdings. This is because such a sensitive issue usually entails a degree of underreporting.

**There is no evidence that cash reserves have been scaled back in light of the significant increase in interest rates since 2021.** Respondents with cash reserves were asked about their response to rising deposit rates. Only 3% say that they have put most of the cash they hold back into the bank. A further 6% are spending cash from their reserves. By contrast, for 90% of respondents with cash reserves the rising interest rates had no impact on the amount of cash held.

## 3.2 Making cash withdrawals

**Automated teller machines (ATMs) remain the most frequently used cash withdrawal point in Germany.** 96% of respondents source cash from them at least occasionally ([see Table 3.2.1](#)). Following a significant drop during the pandemic, there has been only a slight decline in frequency of use over the past two years. Individuals who use this withdrawal location will visit an ATM on average 27 times a year. They withdraw an average of €253. This is around €23 more than in 2021, meaning that the trend towards less frequent, but larger, ATM withdrawals that was seen during the coronavirus pandemic continues to hold true. The general increase in the price level might also have had an impact on average withdrawal amounts. ATMs account for 78% of total withdrawals, which is still very high, but down 3 percentage points compared with 2021. Both the point of sale and the bank counter are gaining in importance.

## Cash withdrawal behaviour by place of withdrawal

Tab. 3.2.1

As reported by respondents

	2014	2017	2021	2023
Percentage of users				
ATM	93%	95%	96%	96%
Bank counter	39%	38%	20%	29%
Point of sale	12%	23%	34%	41%
Average number of withdrawals per year (based on all users)				
ATM	43	42	30	27
Bank counter	12	10	13	15
Point of sale	12	8	15	14
Average withdrawal amount (€, based on all users)				
ATM	180	189	230	253
Bank counter	354	447	736	451
Point of sale	87	87	94	102
Percentage of total withdrawals per year made at each location				
ATM	81	84	81	78
Bank counter	18	14	11	13
Point of sale	2	2	8	9
Amount left before next withdrawal (€)				
	32	34	40	44

Questions: "How often do you withdraw cash at an ATM/a bank counter/a point of sale?",  
"How much cash do you withdraw on average at an ATM/a bank counter/a point of sale?",  
"When you decide to withdraw more cash, how much do you usually still have in your wallet?"

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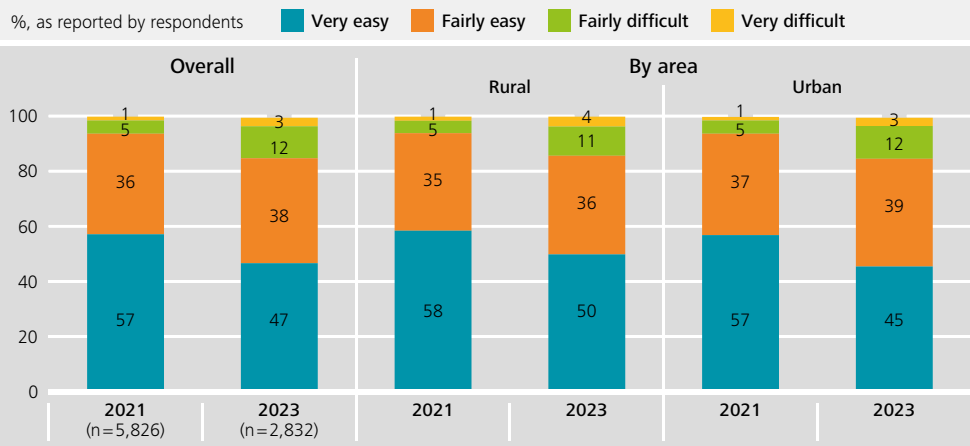
**In 2023, 41% of respondents use the point of sale as a cash withdrawal point, which is more than did so in 2021.** The number of visits in a year has hardly changed compared with the previous survey, but the amount withdrawn per user has now risen to €102. Unlike at ATMs and bank counters, frequent users of this withdrawal option draw comparatively large amounts, while those who only occasionally obtain cash at the point of sale tend to withdraw relatively small amounts. Point of sale withdrawals as a percentage of total withdrawals have gone up slightly since 2021, from 8% to 9%.

**Withdrawals at bank counters also recorded a significant increase following a sharp slump during the coronavirus pandemic.** The share of those withdrawing money at the bank counter almost halved to 20% between 2017 and 2021 but stood at 29% in 2023. This increase is mainly attributable to people who make regular use of the bank counter option – i.e. at least once a quarter. They make up about the same proportion of the population as in 2017, while their numbers were significantly lower in 2021. By contrast, the share of infrequent users, who usually withdraw large amounts, has roughly halved since 2017 and is only slightly higher than in 2021. As a result, the average withdrawal amounts reported by users have fallen significantly compared with 2021, dropping to €451 and so returning to a level similar to that recorded in 2017. Overall, the coronavirus pandemic is likely to have had a major impact on the use of bank counters in 2021. Many people avoided personal contact at the bank and instead used ATMs or withdrew large amounts so that they would not have to visit the bank counter so often. After the end of the pandemic, usage seems to have normalised and a large proportion of regular users have returned to branches. At the same time, the data suggest that large individual withdrawals are much less frequent than before the pandemic. It may be the case that cash is being used less often to pay for major purchases than it used to be ten years ago.



### Access to ATMs and bank counters

Fig. 3.3.1



Basis: Respondents with access to a current account (2023: subgroup B only). Question: "When you want to withdraw cash at an ATM or the bank, how easy or difficult do you usually find it to get there?"  
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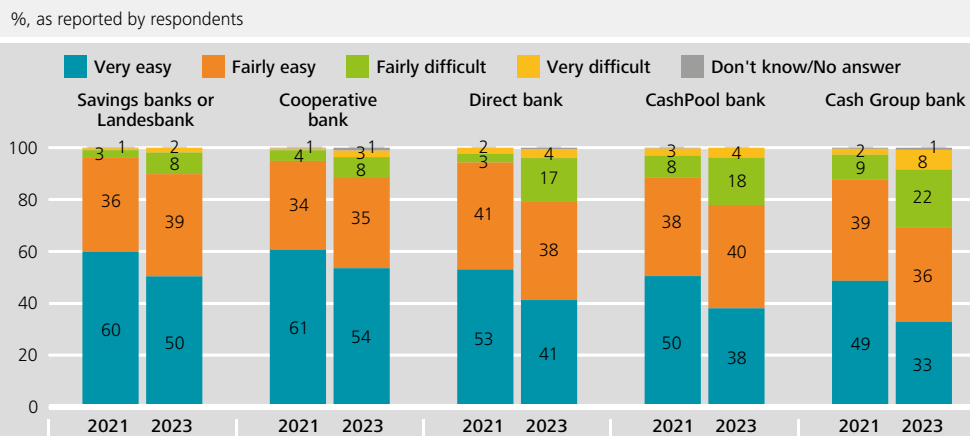
## 3.3 Access to cash

**Access to cash has deteriorated markedly compared with 2021.** The share of respondents who find it fairly difficult or very difficult to get to an ATM or bank counter has risen from 6% to 15% (see Figure 3.3.1). This development is something which spans all socio-demographic groups. Bank counter closures and the scaling back of the ATM network may be partly at the root of this. Whereas there were still around 57,000 ATMs in Germany at the end of 2020, their number fell to less than 53,000 by the end of 2022.<sup>11</sup> The number of bank branches also declined over the same period – from just under 26,000 to around 22,000.<sup>12</sup>

**Satisfaction with access to cash depends on which bank the respondents have their current account with.** In general, access to cash has deteriorated across all groups of institutions. Customers with their account at a savings bank or Landesbank or one of the cooperative banks are the most satisfied. Only around 10% of them say that access to an ATM or bank counter is fairly difficult or very difficult. However, in the last survey in 2021, this share was less than 5% (see Figure 3.3.2). Among respondents who hold an account with a direct bank, the share of those with restricted access to withdrawal options rose significantly from 6% to 20%. Customers of CashPool and Cash Group banks were already the most likely to report difficulties in accessing cash in the 2021 survey round. Two years later, the share of people who find it fairly or very difficult to get to a withdrawal point has risen sharply, reaching 22% in the case of CashPool banks (up 11 percentage points) and 30% for Cash Group banks (up 18 percentage points). Given that savings banks and cooperative banks operate the largest ATM networks in Germany, this may indicate a correlation between the size of the ATM network operated by a group of institutions and their customers' satisfaction with the cash withdrawal options available to them.

### Access to ATMs and bank counters by group of institutions

Fig. 3.3.2



Basis: Respondents with access to a current account (2023: subgroup B only). Question: "When you want to withdraw cash at an ATM or the bank, how easy or difficult do you usually find it to get there?"  
Deutsche Bundesbank

**However, aside from the actual availability of withdrawal options, specific personal factors might also have an impact on the effort involved in accessing cash.** The survey does indeed capture respondents' subjective assessments of the effort involved. An example of the kinds of personal factors that might play a role would be the importance of cash use for the individual in question. Respondents who rate the idea of being able to use cash as

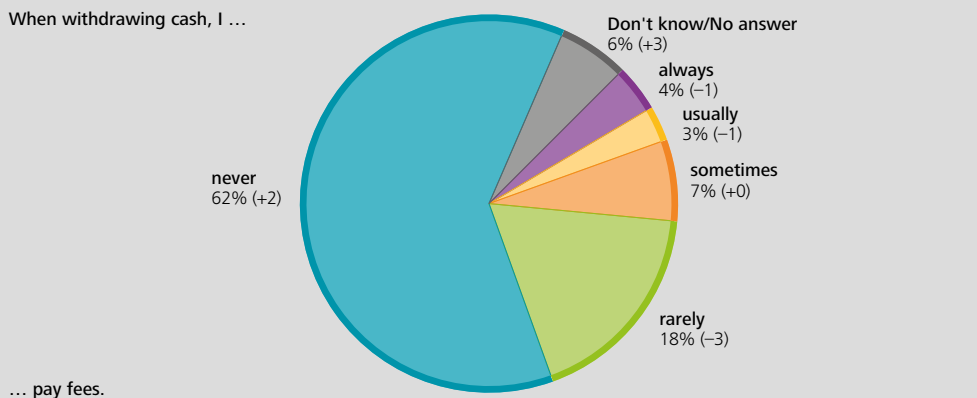
<sup>11</sup> See [European Central Bank, ECB Data Portal | Number of terminals provided by resident PSPs – ATM, with a cash withdrawal function.](#)

<sup>12</sup> See [Deutsche Bundesbank \(n.d.\), Bank office report 2022 \(bundesbank.de\).](#)

### Cash withdrawal fees

Fig. 3.3.3

% (change from 2021 in percentage points), as reported by respondents



Basis: Respondents in subgroup B who use ATMs (n=2,750). Question: "Assume you want to withdraw cash from an ATM with your girocard (previously EC card) or other debit card. Which of the following statements applies to you?"  
Deutsche Bundesbank

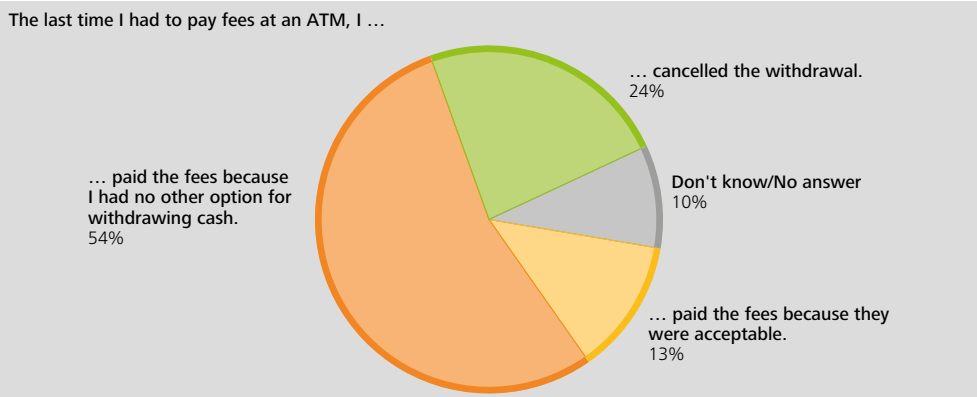
not particularly important or not important at all more frequently perceive the act of getting to an ATM or bank counter as fairly difficult or very difficult. The same is true of people aged 35 to 54, despite the fact that they typically lead a mobile lifestyle and so are likely to be able to easily get to a withdrawal point. In other words, respondents who perceive access to withdrawal points as difficult do not necessarily have to be dissatisfied with the cash infrastructure in place around them. Rather, they may well consider cash to be a hassle in general.

**The perceived deterioration in access to ATMs and bank counters can be observed in urban and rural areas<sup>13</sup> alike.** One possible reason for this could be that people in rural areas are accustomed to travelling further distances for daily errands than people in the city. The vast majority of respondents (85%) combine going to an ATM or bank counter with other trips and tasks – both in urban and rural areas. 65% of respondents in rural areas and 58% of respondents in urban areas withdraw cash when shopping for day-to-day retail purchases. 13% of people in urban areas and 8% of people in rural areas take shopping trips, eating out and going into town as an opportunity to top up their wallets.

### Reaction to withdrawal fees

Fig. 3.3.4

%, as reported by respondents



Basis: Respondents in subgroup B faced with withdrawal fees at an ATM (n=1,048). Question: "What did you do the last time you wanted to withdraw cash from an ATM and had to pay fees to do so?"  
Deutsche Bundesbank

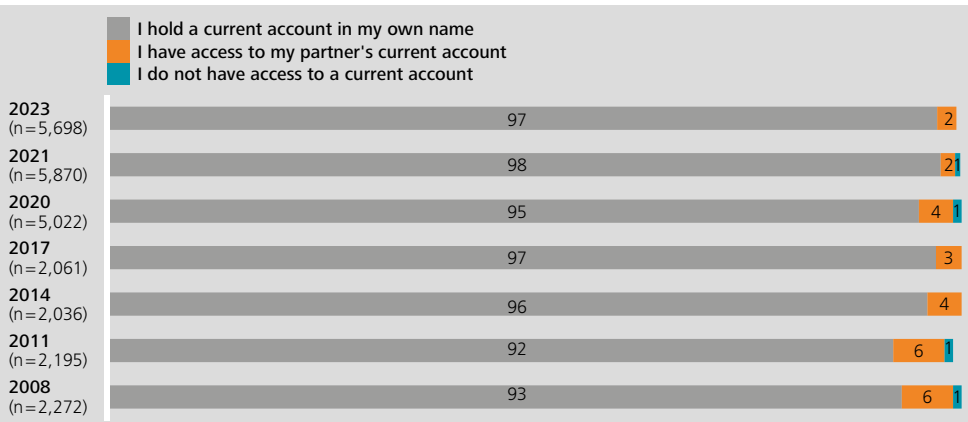
**Withdrawal is free of charge for most respondents.** A clear majority of 62% of respondents never pay fees when withdrawing cash using a girocard or other debit card (see Figure 3.3.3). Only 7% say they always or usually pay fees. The situation is thus similar to what it was in the last survey in 2021. Of those respondents who have been in a situation where they were expected to pay withdrawal fees at least once in the past, two-thirds paid those fees because the level of the fees was acceptable or they had no other option for withdrawing cash (see Figure 3.3.4). By contrast, one-quarter of respondents (24%) opted to cancel their withdrawal. This suggests that fees could restrict access to cash to an extent.

<sup>13</sup> Municipalities are classed as rural or urban on the basis of the BIK regional size categories developed by the research institute BIK ASCHPURWIS + BEHRENS GMBH, Hamburg. For the purposes of this study, categories 1 to 4 of the ten-level BIK regional size schema (GKBIK10) are classed as rural. These are municipalities located in regions with fewer than 50,000 inhabitants. Regions are demarcated on the basis of commuter links. For a more detailed description of the BIK classification schema, see [Arbeitsgruppe Regionale Standards \[Working Group on Regional Standards\] \(eds.\) \(2019\). Regionale Standards – Ausgabe 2019. GESIS-Schriftenreihe, Volume 23.](#)

### Current account ownership

Fig. 4.1.1

%, as reported by respondents



Basis: All respondents. May fail to sum to 100 due to rounding. Question: "Do you hold one or more current accounts?"  
Deutsche Bundesbank

## 4 Spotlight on cashless means of payment

### 4.1 Current account ownership and online banking

In Germany, almost every person aged 18 or older holds at least one current account. This means that access to banking and financial services and thus financial inclusion in Germany is at a high level.<sup>14</sup> Participation in payments requires access to a current account. They enable the execution of cashless transactions (credit transfers, direct debits and card payments) as well as cash deposits and withdrawals. 97% of the respondents reported that they hold an account in their own name and 2% say that they have access to their partner's account (see Figure 4.1.1). Overall, 84% of those surveyed have access to a single current account. 14% say they hold two current accounts and 1% have three current accounts. The proportion of people owning a current account has risen over the period since the Bundesbank began its studies on payment behaviour in Germany (93% in 2008, 97% in 2023).

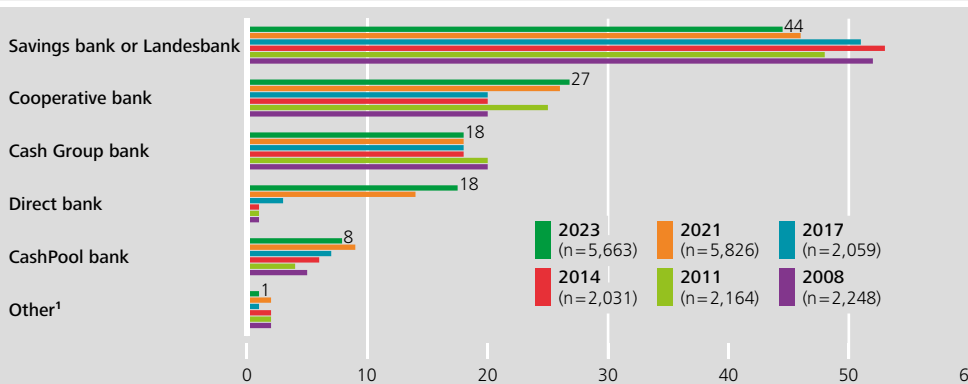
Despite a downward trend, most participants have an account with a savings bank; direct banks have seen the biggest growth. The breakdown by group of institutions (see Figure 4.1.2) shows that the largest proportion of current accounts continues to be held with savings banks and Landesbanken (44%), followed by cooperative banks (27%). 18% of respondents state that they hold an account with a Cash Group bank and another 18% have their account with a direct bank. Direct banks further expanded their market share, recording an increase of 4 percentage points.

Whilst account ownership among young adults (under 25 years of age) is dominated by savings banks, among persons aged 25 to 34, it is shifting primarily in favour of direct banks. Looking at the distribution of current accounts by age group (see Figure A.4.1.2), it appears that the prevalence of a current account with a savings bank is significantly higher in the 18 to 24 bracket (56%) than in any of the other age groups (where figures range from

### Distribution of current accounts by group of institutions

Fig. 4.1.2

%, as reported by respondents



Basis: All respondents with a current account. Question: "Where is this current account or where are these current accounts held?" Multiple answers possible. In previous years, participants reported only their main current account (single response). <sup>1</sup> Including "Don't know/No answer".

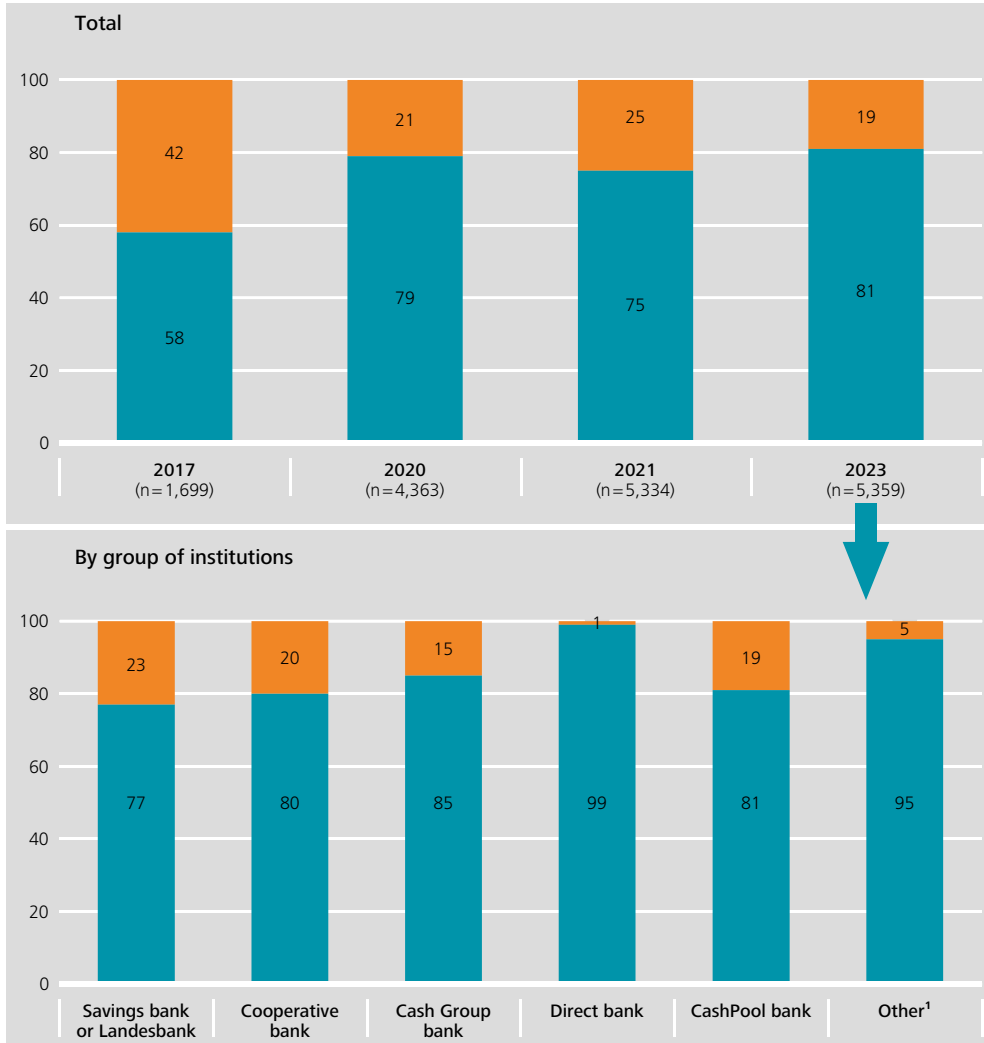
Deutsche Bundesbank

<sup>14</sup> The high degree of financial inclusion in Germany is borne out by the results of various studies. See, for example, Principal Financial Group (ed.) (2023), Global Financial Inclusion Index 2023, available at <https://static.poder360.com.br/2023/10/Global-Financial-Inclusion-2023-Principal-Group.pdf> and Irving Fisher Committee on Central Bank Statistics, Bank for International Settlements (ed.) (2017), Measuring financial inclusion: a multidimensional index at <https://www.bis.org/ifc/publ/ifcb47p.pdf>. Last accessed on 24 April 2024.

### Use of online banking

Fig. 4.1.3

%, as reported by respondents ■ Yes ■ No



Basis: All respondents with access to a current account who have used the internet in the last three months. Question: "Do you use online banking?" <sup>1</sup> Including "Don't know/No answer".

37% to 46%). As in the previous survey, it can be presumed that once a person completes formal education, embarks on a professional career and relocates their centre of life, their link to regionally anchored institutions weakens and other aspects of the customer relationship gain in importance. This is something that can work in favour of direct banks in particular: while just 11% of those aged 18 to 24 hold an account with a direct bank, the figure rises to 32% for persons aged 25 to 44. Among the older sections of society, ownership of a current account with a direct bank declines significantly.

**The share of those holding a current account with a direct bank or a cash group bank increases with income.** A closer look at customer groups shows that people with higher incomes are the most likely to have an account with a direct bank. Whilst just 10% of respondents with a net household income below €2,500 have an account with a direct bank, this figure rises steadily across the income classes and stands at 28% for respondents with an income of €5,000 or more. A similar pattern – albeit in a weakened form – emerges when it comes to the income profile of those banking with Cash Group banks.

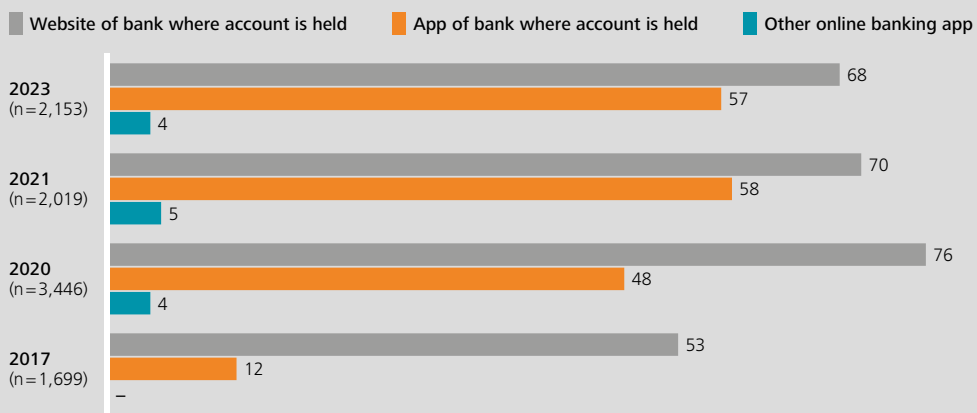
**The use of online banking continues to be very widespread and has risen again compared with 2021.** 81% of respondents who use the internet state they bank online. Having risen from 58% (2017) to 75% (2021) in the wake of the coronavirus pandemic, the prevalence of online banking has thus increased by another 6 percentage points since 2021 (see the upper panel of Figure 4.1.3).

**This increase extends across all age and income groups. Younger and wealthier sections of the population tend to use online banking more than others.** In the group aged 18 to 24, 94% say that they use online banking (see Figure A.4.1.3). By contrast, this share is only 66% for those aged over 65. The proportion of online banking users also increases as you go up the income scale, with a 20 percentage point difference separating the under €2,500 income group from the over €5,000 group. Use of online banking also correlates with employment status and level of education. In addition, online banking is predominantly used by those who prefer to pay cashless: 90% of that group state that they bank online, whereas the figure is 65% in the case of those who prefer cash as a means of payment. Although the use of online banking varies between population groups, Figure A.4.1.3 shows that the increase in use since 2021 is reflected in all age and income brackets.

### Online banking method

Fig. 4.1.4

%, as reported by respondents, multiple answers possible



Basis: Respondents using online banking (2023: subgroup B only). Question: "How do you conduct your banking? Do you use your bank's online banking website, your bank's online banking app or an online banking app not operated by your bank?"

Deutsche Bundesbank

**The use of online banking across the different groups of institutions varies.** 99% of respondents who hold an account with a direct bank reported that they use online banking. This is the highest value for any of the groups of banks for this particular question, ahead of the "Other" category banks at 95%, Cash Group banks at 85%, CashPool banks at 81%, the corporative banks at 80% and the savings banks at 77% ([see the lower panel of Figure 4.1.3](#)).

**The majority of online banking users are still conducting banking transactions via their bank's website.** There is a continuing trend away from website usage and towards apps. Most online banking users (68%) use the website of the bank where they hold their account to make transactions ([see Figure 4.1.4](#)). 57% state that they use their bank's proprietary app and only 4% say they use a third-party app. Following a sharp decline in website use between 2020 (76%) and 2021 (70%), the trend has moderated slightly.

**When banking online, younger respondents tend to use apps, whilst older population groups tend towards website portals.** In terms of age, a contrasting picture emerges when it comes to the mode used for online banking ([see Figure A.4.1.4](#)). Usage of the bank's own website tends to be higher among the older population groups. Meanwhile, app usage progressively declines with age, decreasing from group to group. For example, in the 18 to 24 age group, 78% say that they use an app to do their online banking. 46% use the bank's website for this purpose. This picture is reversed among those aged over 65: 80% use the bank's online banking website and 33% use the bank's app. In contrast to this, a breakdown by income classes presents a more homogeneous picture; website use is higher in all income classes than use of apps provided by the bank where individuals hold their account.

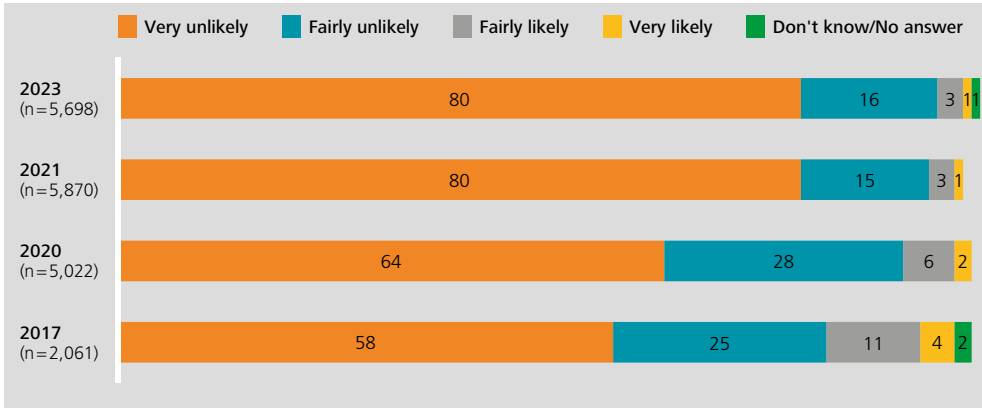
**Willingness to hold an account with an internet platform remains low.** Alongside the established payment service providers highlighted so far, such as savings banks and banks, tech firms have also been emerging as providers of financial services for some years now, provided that they hold a corresponding licence. To date, none of the major internet platforms have offered account models in Germany. However, other countries, such as the United States, have already seen bigtech firms make initial attempts to enter the market for current or savings accounts.<sup>15</sup> Against this background, the survey asked participants whether they could see themselves holding a current account with Google, Amazon, Apple or Facebook

<sup>15</sup> See [4.15% interest rates: Apple startet Sparbuch mit Goldman Sachs \(handelsblatt.com\)](#).

### Current accounts at internet platforms

Fig. 4.1.5

%, as reported by respondents



Basis: All respondents (2023: subgroup B only). May fail to sum to 100 due to rounding. Question: "Could you see yourself holding a current account with Google/Apple/Facebook/Amazon [25% of the basis each] instead of at your bank?"  
Deutsche Bundesbank

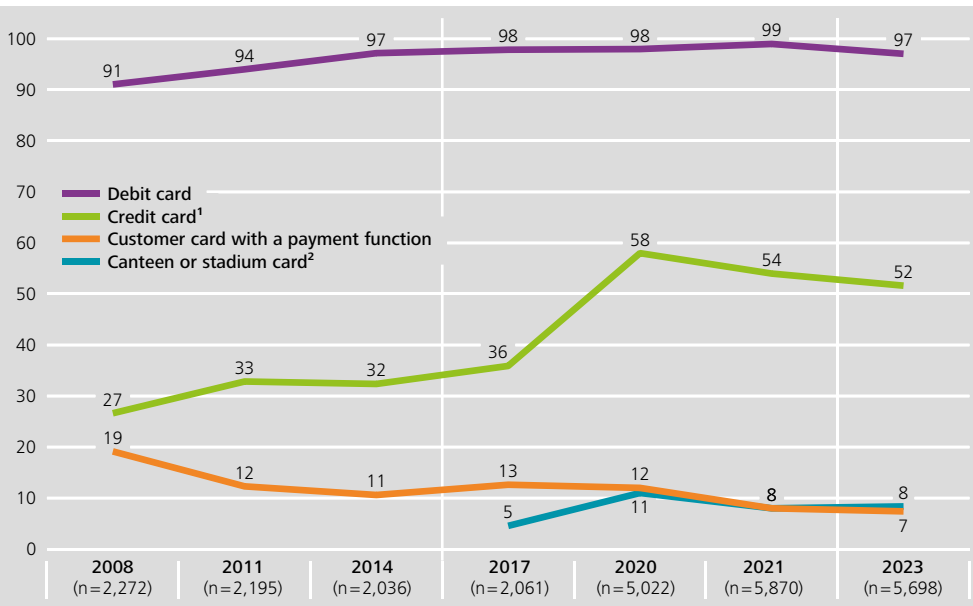
(see Figure 4.1.5). There has been hardly any change in the results since the last study: only 4% can imagine doing so. Willingness to hold an account with one of the big tech firms declined markedly between 2020 and 2021 but the trajectory has now stagnated. It is striking to note that an above-average number of customers of direct banks and Cash Group banks can see themselves holding a current account with an internet platform.

**General scepticism towards internet platforms can be observed in all population groups and increases with age.** However, this high degree of reluctance is somewhat weaker among the higher income groups. As [Figure A.4.1.5](#) shows, strong scepticism increases steadily with age. Measured by the response "very unlikely", this attitude was voiced less commonly by the 18 to 24 age group than by those aged 65 or older (63% and 89%, respectively). Looking at attitudes towards internet platforms by income, reluctance decreases with higher income. Whilst 85% of those with a household income below €2,500 consider themselves "very unlikely" to hold an account with an internet platform, this figure is 11 percentage points lower for the over €5,000 bracket.

### Ownership of payment cards 2008 – 2023

Fig. 4.2.1

%, as reported by respondents, multiple answers possible



Basis: All respondents. Question: "Which of the following cards with a payment function do you own?" <sup>1</sup> Including prepaid credit cards since 2020. <sup>2</sup> Included in survey since 2017.

Deutsche Bundesbank

## 4.2 Ownership and use of payment cards

**Payment cards are the basis for everyday payments.** Not only can they be used to withdraw cash, but they also enable cashless payments at the point of sale – and, depending on the type of card, on the internet.

**Almost all respondents have a debit card. girocard remains in pole position as market leader.** Although debit card ownership has declined from 99% to 97% (see Figure 4.2.1), it remains at a very high level and is a mainstay for the high degree of financial inclusion in Germany highlighted above. The technical infrastructure for card payments is provided by card systems. There are various different card systems (or "schemes") for debit card payment. German banks and savings banks run the girocard system, while Mastercard and VISA are international schemes with their own debit card systems. When asked about their type of debit card, 92% of all respondents reported having a girocard, while 21% of respondents reported having a debit card from one of the international card schemes without a corresponding girocard logo.<sup>16</sup> While girocards are held by slightly more than 90% of respondents across all age groups, debit cards from international providers are particularly popular among those aged 25 to 44. By contrast, the prevalence of debit cards from international providers declines in the population over the age of 55. Many direct banks offer a debit card from an international scheme as a standard service along with their current account. It therefore seems reasonable to assume that the higher numbers of those holding current accounts with direct banks explains the higher prevalence of debit cards from international providers among the group aged 25 to 44 (see Figure A.4.1.2).

**Slightly more than half of those surveyed own a credit card. However, credit card ownership is declining slightly.** 52% of participants say that they own a credit card. Following a sharp increase between 2017 and 2020, the trend has changed and is going down slightly. This decline is mainly being driven by lower-income groups, as well as by those aged 18 to 24 and 65 or older (see Figure A.4.2.2a and Figure A.4.2.2b).

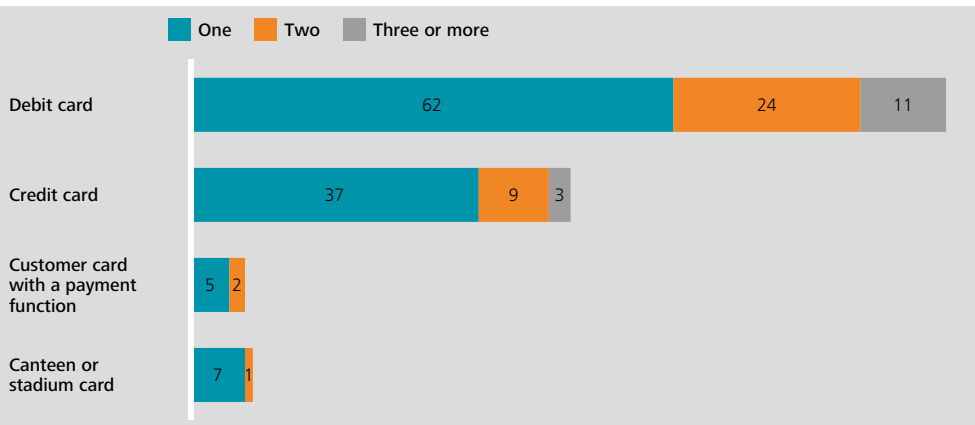
**There have been only marginal changes in the prevalence of prepaid credit cards and other payment cards.** In addition to the classic credit cards that grant a credit line, there are also

<sup>16</sup> These are Mastercard Debit or Visa Debit cards.

### Ownership of payment cards by number per category

Fig. 4.2.2

%, as reported by respondents, multiple answers possible



Basis: Respondents in subgroup B (n=2,853). Question: "Which of the following cards with a payment function do you own, and how many?"

Deutsche Bundesbank

prepaid credit cards that have to be topped up with money before use. In 2021, 7% of all credit card owners had a prepaid credit card. In 2023, this figure amounts to 8%. Prepaid credit cards are particularly prevalent in the two lower age groups (18 to 34 years). Other payment cards tend to be of secondary importance. The ownership of customer cards with a payment function declined from 8% to 7%. The share of canteen/stadium cards remains unchanged at 8%.

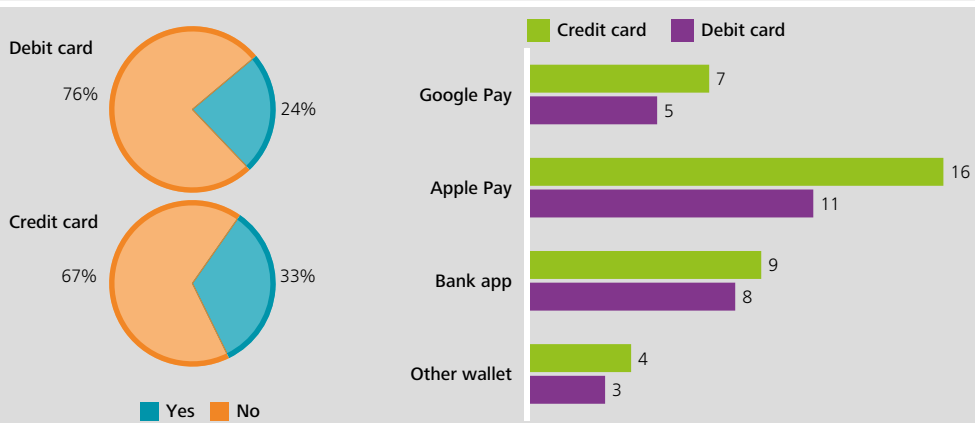
**Around one-third of the study participants have more than one debit card. For credit cards, this figure is just below one-eighth.** As well as polling respondents on the type of cards they have, the survey also asked how many of the aforementioned payment cards each respondent owns (see Figure 4.2.2). 35% of respondents have more than one debit card. While the share of those holding a single card has declined (from 68% in 2021 to 62%), the share of those holding three or more cards in particular has increased (from 6% in 2021 to 11%). With respect to credit cards, 12% answer that they have more than one. This value is unchanged compared with 2021. The share of those who own just one credit card has declined. In the 2021 survey, twice as many men than women had two or more credit cards but that finding is not replicated in the data for 2023.

### Debit or credit card saved to a payment app

Fig. 4.2.3

%, as reported by respondents

Multiple answers possible



Basis: Respondents who own at least one debit card (n=5,531) or credit card (n=2,942). Question: "Have you added one or more of these cards to an app for mobile payments?"

Deutsche Bundesbank

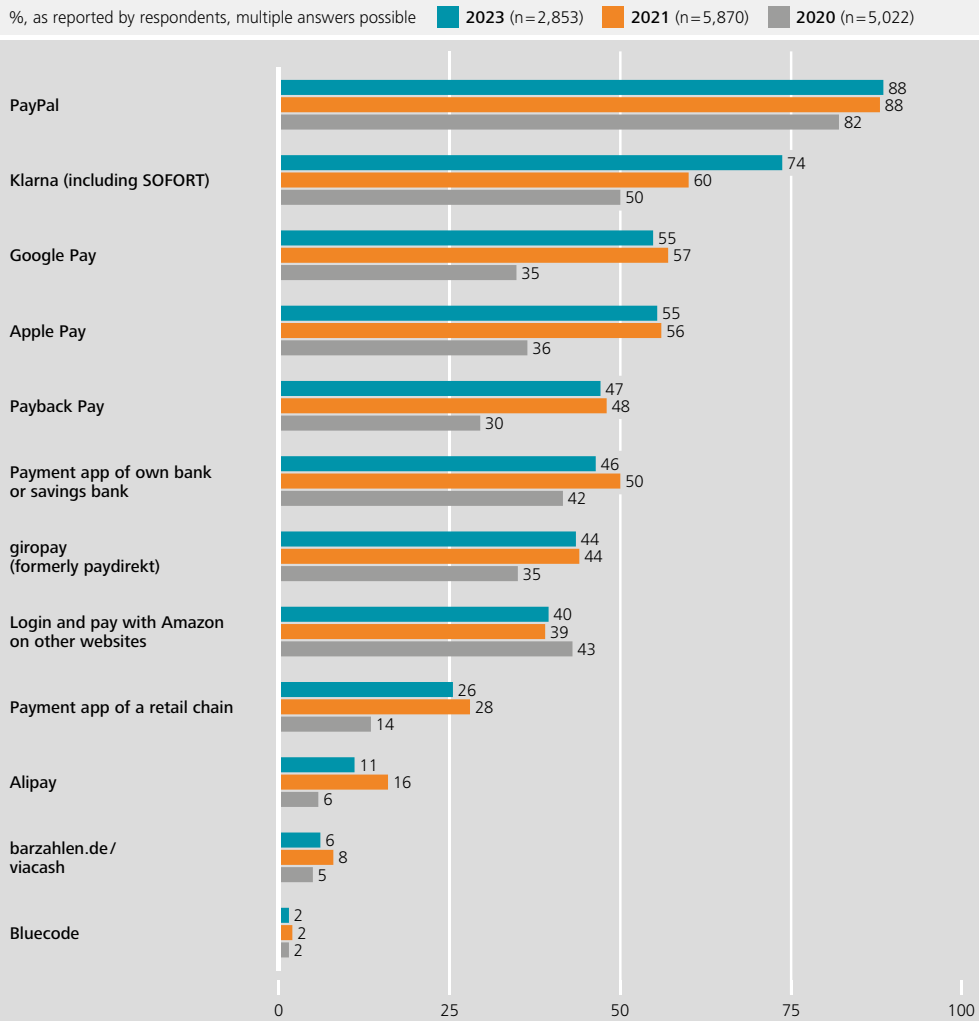
**Embedding of debit and/or credit cards in digital wallets has hardly changed since 2021.** Most of the debit and credit cards described above can be stored on mobile devices in "mobile wallets". This enables the mobile device (with the help of the wallet) to turn into a payment card so that it can be used to make payments at the point of sale – and sometimes even on the internet. 24% of the respondents owning a debit card say they have added at least one card to a mobile wallet (see Figure 4.2.3). For credit cards, the figure totals 33%. Despite the increased popularity and use of mobile payments (see Chapters 5.2 and 5.3), the two figures have only increased marginally compared to 2021 – by 1 percentage point each.

**Apple Pay has gained in importance among the mobile wallets used.** Compared to 2021, the share of respondents who have set up a debit or credit card for use in Apple Pay rose from 13% to 16% for credit cards and from 8% to 11% for debit cards (see Figure 4.2.3). Meanwhile the proportion of survey participants with a card loaded to Google Pay has stayed stable. The relative amounts of people who add a debit or credit card to their mobile wallet are determined by socio-demographic factors: the proportion decreases with increasing age. In addition, people with higher household incomes tend to load their payment card(s) to a mobile wallet more frequently. These trends are apparent for both credit cards and debit cards.



### Familiarity with mobile wallets and e-payment methods

Fig. 4.3.1



Basis: All respondents (2023: subgroup B only). Question: "With which of the methods shown are you familiar?"  
Deutsche Bundesbank

## 4.3 Web- and app-based payment methods

**Of the web and app-based payment methods, PayPal, Klarna and digital wallets are the most well known.** PayPal (88%)<sup>17</sup> and Klarna (74%), which are specifically designed for online purchases, top the list as the best known of the innovative payment methods. Familiarity with them matched or exceeded previous years (see Figure 4.3.1). Awareness of other similar procedures is lower. 44% of respondents are familiar with giropay, the online payment method operated by German banks and savings banks. 40% are familiar with the concept of Amazon Pay, where the payer logs into their Amazon account and then uses it to pay on a website that is not Amazon. In addition to familiarity with e-payment methods, the survey also asked about awareness around mobile wallets (see also Chapter 4.2). Mobile wallets enable users to pay with a smartphone at the point of sale but can also be used to make payments online. While mobile payment methods (also known as mobile wallets), which can be used at the physical point of sale, became significantly more well known between 2020 and 2021, especially amid the coronavirus pandemic, respondents' familiarity with them did not grow any further in the period up to 2023. Apple Pay and Google Pay remain the most visible, with 55% of respondents reporting that they are aware of them in each case, followed by payment apps of banks and savings banks (46%), Payback Pay (47%) and payment apps of retail chains (26%).

**Where mobile devices are concerned, there has been particularly strong growth in the ownership of smartwatches.** The share of those owning a smartphone rose by 2 percentage points from 89% in 2021 to 91% in 2023, while the proportion of fitness wristbands with a payment function rose by 1 percentage point. The prevalence of smartwatches rose significantly, from 7% in 2021 to 12% in 2023 (see Figure 4.3.2). The largest increase has been among those aged under 55. Furthermore, prevalence rises with income (see Figure A.4.3.2). The widespread presence of smartphones and, increasingly, smartwatches paves the way for the use of mobile payments in retail settings.

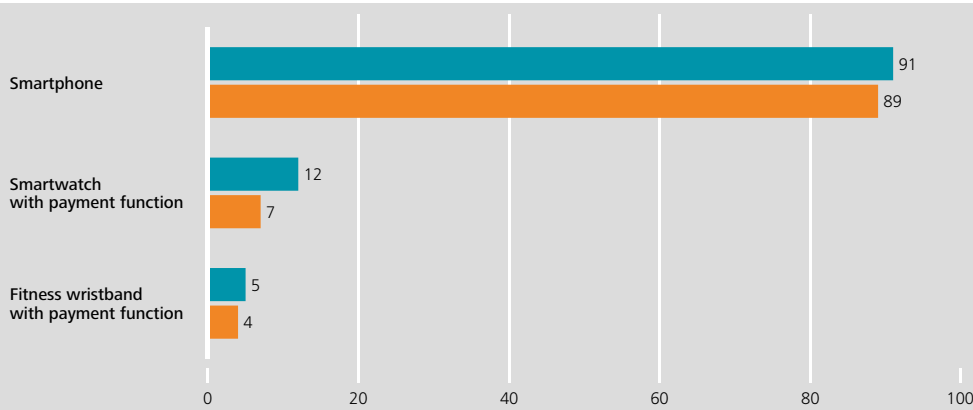
<sup>17</sup> PayPal was originally a purely online payment method but started offering a mobile app some years ago. This gave users a way to pay in physical stores as well. However, it is used less frequently by respondents than the mobile wallets of Apple, Google or the banks, some of which launched later than the PayPal app (see Figure 4.3.3).

### Ownership of mobile devices

Fig. 4.3.2

%, as reported by respondents, multiple answers possible

■ 2023 ■ 2021



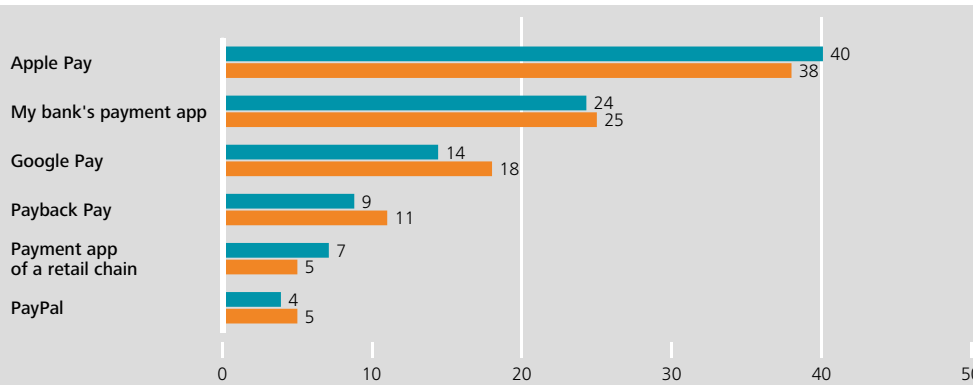
Basis: All respondents (n=5,698). Question: "Do you personally own one or several of the following devices?"  
Deutsche Bundesbank

### Usual use of mobile payment methods at the POS

Fig. 4.3.3

%, as reported by respondents, multiple answers possible

■ 2023 (n=679) ■ 2021 (n=892)



Basis: Respondents familiar with at least one innovative payment method and who have paid at the POS using their smartphone (2023: subgroup B only). Question: "When paying with your smartphone, smartwatch or fitness wristband at the point of sale in a store, which payment method do you usually use?"  
Deutsche Bundesbank

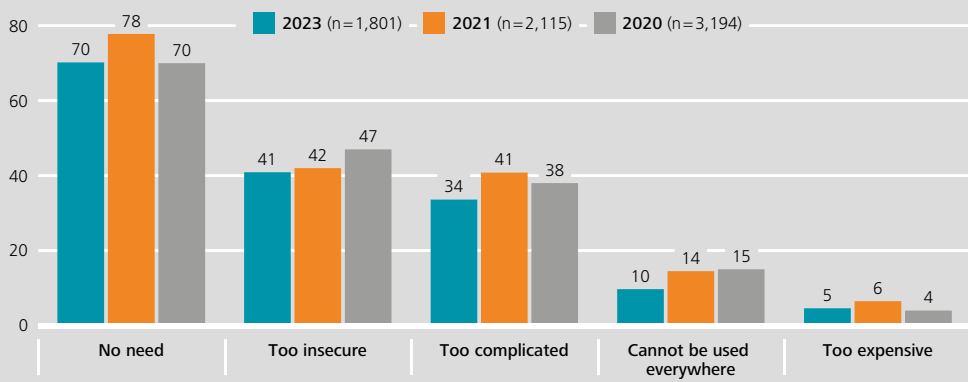
In terms of actual usage, smartphones are the device most commonly used for mobile payments at the checkout. Wearables continue to gain in importance. Among the respondents who said they own a smartphone and are familiar with at least one innovative payment method, 27% have used a smartphone to pay at the point of sale. This represents an increase of 10 percentage points on 2021. Although just 12% of survey participants own a wearable, 39% of those respondents have actually used it to pay at the point of sale before (up 12 percentage points).

Apple Pay continues to expand its dominance as mobile payment method at the point of sale, while use of other payment methods is declining. 40% of those who have used a smartphone to pay at the point of sale usually use Apple Pay to do so (up 2 percentage points; see Figure 4.3.3). As was the case in 2021, the payment apps of banks and savings banks occupy second place (24%). By contrast, 14% use Google Pay (down 4 percentage points from 2021). The lower use of Google Pay compared with Apple Pay is also reflected in the fact that a significantly smaller proportion of respondents have loaded their payment cards to Google Pay (see Chapter 4.2, Figure 4.2.3). Although almost half of those surveyed are aware of Payback Pay, only 9% typically use it (down 2 percentage points). Payment apps offered by retail chains are used by 7% of respondents (up 2 percentage points) and PayPal by 4% (down 1 percentage point). The use of mobile payment methods is lower among those aged 55 or older and tends to increase with higher incomes. Men use Apple Pay and Google Pay more frequently than women, while women use bank payment apps and Payback Pay more frequently (see Figure A.4.3.3).

### Reasons for not using mobile payment methods

Fig. 4.3.4

%, as reported by respondents, multiple answers possible



Basis: Respondents who have never paid using a smartphone at the point of sale in a store before (2023: subgroup B only). Question: "Why have you not used any mobile payment methods at the point of sale in a store before?"

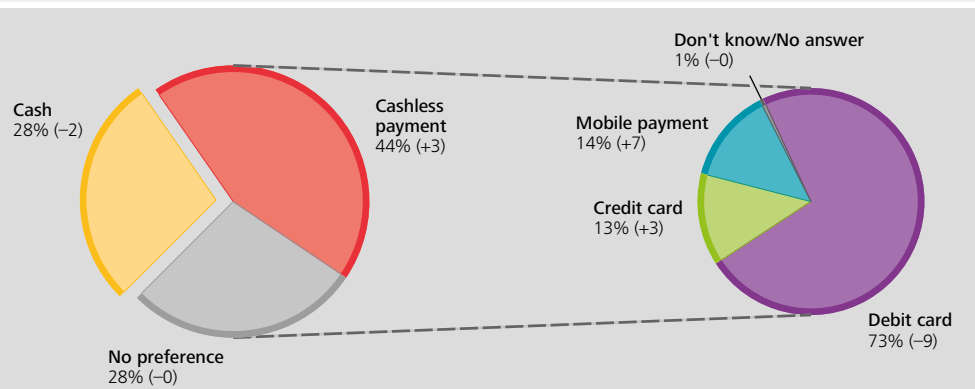
Deutsche Bundesbank

Even though the use of mobile payment methods is increasing overall, many respondents are not yet using mobile payment. Cited reasons for that are a lack of need, concerns around security and complexity of use. 70% of respondents who do not use mobile payment methods state that this is primarily because they do not see any need to use the option of mobile payment (see Figure 4.3.4). This is a smaller share than in 2021, though (down 8 percentage points). Concerns about the security of mobile payment methods are the second most common reason for not using them (41%). Overall, however, it appears that barriers preventing people from using mobile payments are getting smaller: the idea that the procedure is too complicated has decreased in relevance by 7 percentage points. Costs are a subordinate reason for not using mobile payment methods and are cited by 5% of respondents. The latter two reasons for non-use have also lost some of their significance compared with the previous study.

### Preferred means of payment

Fig. 5.1.1

% (change from 2021 in percentage points), as reported by respondents



Basis: All respondents (n=5,698). Question: "If you were offered a choice of payment methods in-store, which would you prefer?"  
Deutsche Bundesbank

Basis: Respondents who prefer cashless means of payment or who have no clear preference (n=4,107). Question: "Which of these cashless means of payment do you prefer?"

## 5 Use of means of payment

### 5.1 Attitudes to means of payment

Cash is still very popular, but most people now prefer cashless means of payment. When asked about their preferences, 44% of respondents prefer to pay cashless, 28% prefer cash and 28% are indifferent (see the left-hand side of Figure 5.1.1). Compared with 2021, there has been a slight shift in favour of cashless means of payment. In particular, younger and higher-income social groups prefer cashless payments. Older people and people with lower incomes more often prefer cash (see Figure A.5.1.1a).

Out of the cashless means of payment available, respondents with no preference as to payment type and those who prefer cashless payment prefer to use debit cards (73%). However, mobile payment methods and credit cards are gaining popularity. Mobile payment methods are preferred by 14% and credit cards by 13% (see the right-hand side of Figure 5.1.1). The share of those who prefer mobile payment methods doubled (up 7 percentage points), to the detriment of traditional debit cards (down 9 percentage points). The increasing popularity of mobile payments is driven, on the one hand, by the responses of the younger cohorts and the higher earners (see Figure A.5.1.1b). In addition, significantly more male respondents prefer mobile payment methods (18% of men express a preference for mobile payment, compared with 9% of female participants).

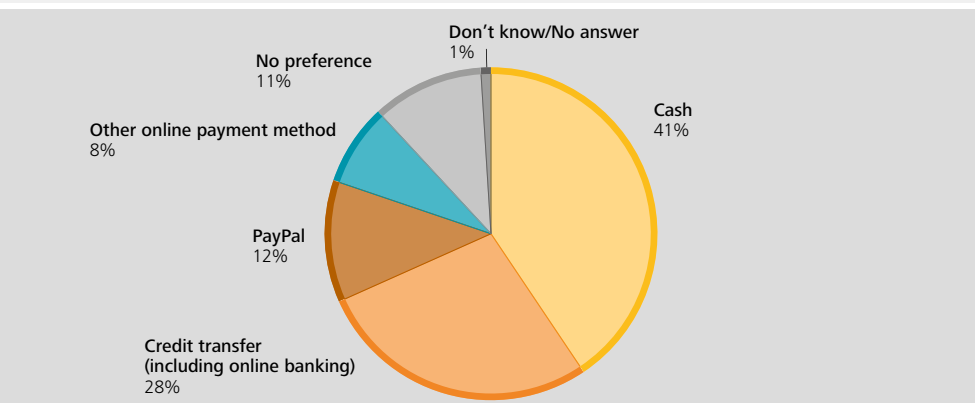
The option of mobile payments is mainly favoured by digitally savvy respondents. For example, mobile payment solutions are particularly preferred by those who have experience with crypto tokens or who would tend to hold an account with an internet platform.

Even for person-to-person (P2P) payments just under half of the respondents (48%) now prefer cashless means of payment, while 41% say they still prefer to use cash. Out of the cashless payment methods, the traditional credit transfer enjoys the greatest popularity (28%) for such P2P payments (see Figure 5.1.2). E-payment methods such as PayPal and giropay (including paydirekt and Kwitt) are another way of making payments to friends, relatives or acquaintances. Of these, PayPal is the favourite means of payment, at 12%. Overall, there are clear differences between different age and income groups. For example,

### Preferred means of P2P payment

Fig. 5.1.2

%, as reported by respondents

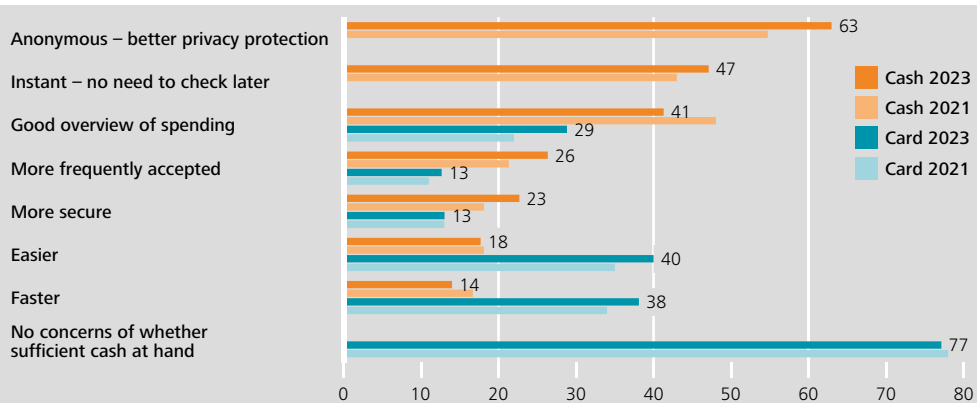


Basis: All respondents (n = 5,698). May fail to sum to 100 due to rounding. Question: "If you wanted to give money to family, friends, or acquaintances, what would be your preferred means of payment?"  
Deutsche Bundesbank

### Comparison of advantages of cash payments and card payments

Fig. 5.1.3

%, as reported by respondents, multiple answers possible



Basis: All respondents (2021: n = 5,870; 2023: n = 5,698). Question: "In your opinion, what are the biggest advantages of cash payments over card payments, and vice versa? You may select up to three answers."

Deutsche Bundesbank

older respondents more frequently prefer cash, while younger respondents tend more towards cashless means of payment. One-quarter of those aged 25 to 34 say they prefer PayPal when making P2P payments, but only 3% of people 65 or older cite it as their preferred option. By contrast, 48% of the over-65 age group prefer cash, whilst only 26% of the 25 to 34-year-olds prefer cash. At the same time, cash preference decreases as income increases (see Figure A.5.1.2).<sup>18</sup>

**In general, respondents especially value the way that cash protects their privacy.** When asked about the main advantages of cash over card payments, 63% cite anonymity, 47% highlight the fact that payments are settled immediately, 41% say that cash provides a good overview of spending and 26% cite high levels of acceptance. Overall, cash thus offers a reliable and tangible way of transferring value in many different places without disclosing data (see Figure 5.1.3).

**By contrast, convenience is perceived predominantly as an advantage of card payments.** 40% of respondents see greater ease of payment as an advantage of card payments, whilst only 18% consider it an advantage of cash. Card also scores higher than cash when it comes to transaction speed: 38% of respondents see speed as an advantage of card payments, while only 14% think of it as a benefit of cash.

**However, by far the most frequently cited advantage of card payments is not having to worry about whether you have enough cash in your wallet when shopping.** This aspect is mentioned by 77% of respondents (see Figure 5.1.3). Respondents that are younger, male and members of the higher income brackets are most likely to pick it out as an advantage of paying by card.

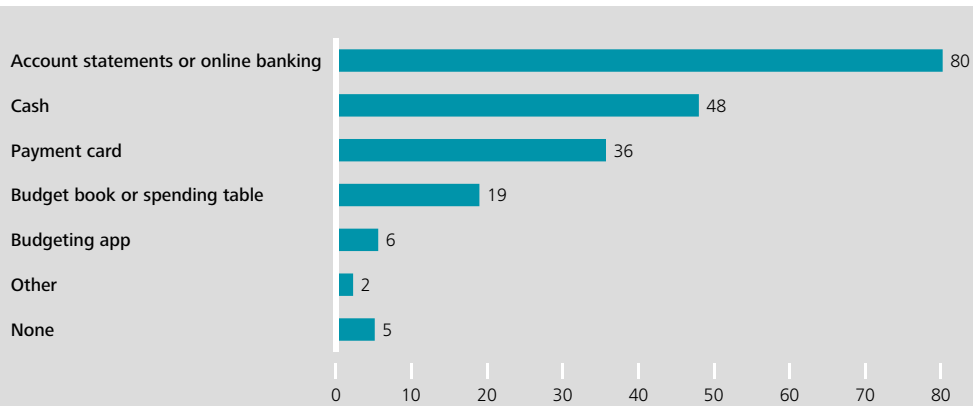
**Views on cash have changed slightly since 2021.** In particular, more respondents highlight privacy as a benefit of cash (up 8 percentage points). On the one hand, this may indicate that the issue of data protection when making payments has become more important for respondents. On the other hand, it is possible that using cash and payment cards in parallel may, over time, lead respondents to focus on the distinguishing features of cash when they

<sup>18</sup> No comparable data from 2021 are available regarding what P2P payment methods participants typically favour. This is because the last survey only asked respondents to name their preferred cashless means of payment for P2P transactions.

### Ways of keeping track of spending

Fig. 5.1.4

%, as reported by respondents, multiple answers possible



Basis: Respondents in subgroup A (n = 2,845). Question: "Which of the following methods do you use to keep track of your day-to-day spending?"  
Deutsche Bundesbank

are asked to compare the two forms of payment directly. In addition to privacy, the high acceptance of cash is also frequently cited (up 5 percentage points). Cash is still the most widely accepted form of payment, even though acceptance has declined recently (for more information, see the [background box entitled "Means of payment and their acceptance"](#) on the following page).

#### Card payments are more often perceived as being convenient than they were in 2021.

The proportion of those who consider card payments as easier or faster has grown by 5 and 4 percentage points, respectively, compared with 2021. The share of respondents who feel that cards are more broadly accepted than cash and cite this as an advantage is 2 percentage points larger than in 2021.

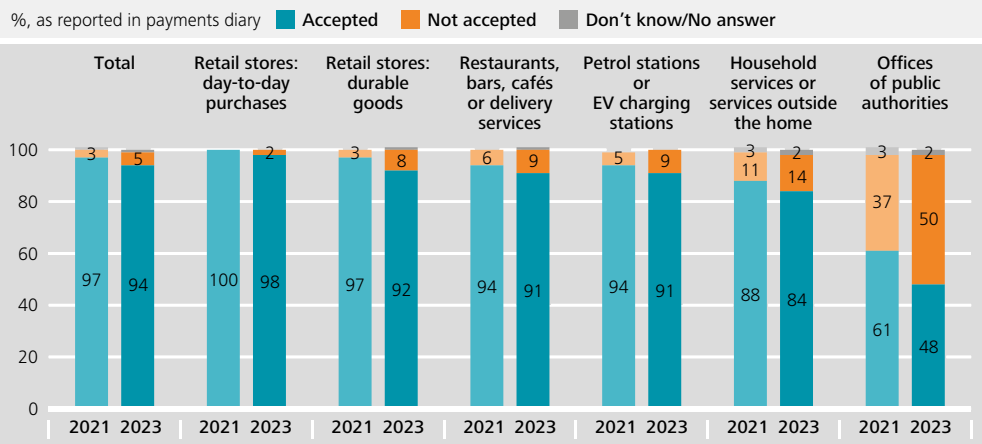
#### There are also differing attitudes to the two modes of payment when it comes to keeping track of expenditure.

The share of respondents who say that one of the advantages of cash is that it provides a good overview of spending fell by 7 percentage points. This is paralleled by a 7 percentage point rise in people who claim the same of card payments. But it is still an advantage associated more with cash than with cards (41% vs. 29%).

**When asked directly how they keep an eye on their everyday spending, almost half of respondents say they use cash for that purpose (48%).** 36% say they deliberately use cards as a way of keeping track (see Figure 5.1.4). However, most people – four out of five respondents – use online banking and bank account statements to check what they are spending. Improvements to the transaction overviews displayed on banks' websites and apps and the increased use of multi-banking platforms could be key factors here.

### Acceptance of cash at physical places of payment

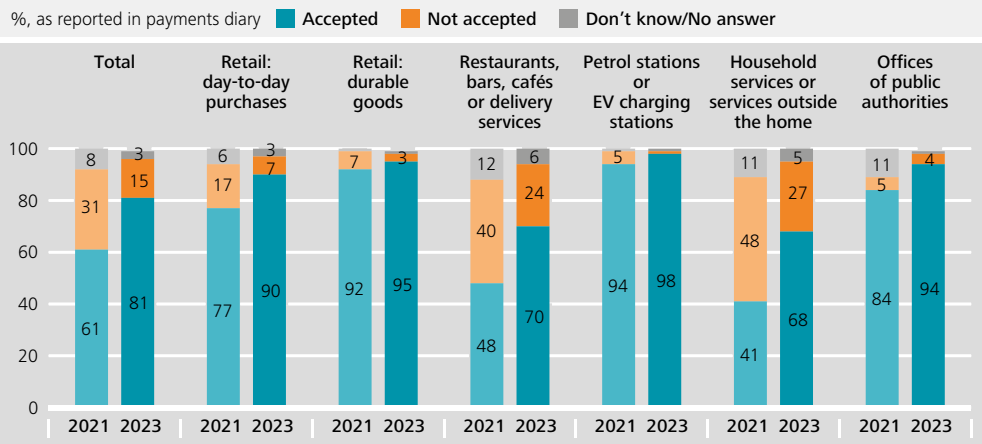
Fig. 5.1.5



Basis: All transactions at physical places of payment (excluding online) (2023: n = 14,394; 2021: n = 13,829). Questions: "How did you pay?" / "Would the payee have also accepted cash?"  
Deutsche Bundesbank

### Acceptance of cashless means of payment at physical places of payment

Fig. 5.1.6



Basis: All transactions at physical places of payment (excluding online) (2023: n = 14,394; 2021: n = 13,829). Questions: "How did you pay?" / "Would the payee have also accepted a means of payment other than cash?"  
Deutsche Bundesbank

## Background information: Means of payment and their acceptance

**Acceptance of cash in Germany remains very high, but there is a downward trend.** *Figure 5.1.5* shows the proportion of transactions at physical payment locations (i.e. not online) where respondents would have been able to pay in cash. The share was just under 97% in 2021 but had dropped to 94% by 2023. Whether cash is accepted or not depends heavily on the place where the payment is being made. At locations for day-to-day retail purchases, cash payments are still almost universally possible (98%). By contrast, there has been some deterioration when it comes to retail stores for durable goods, eateries and petrol stations – in those settings, acceptance can no longer be regarded as universal. There is also a lower rate of acceptance in the services sector (84%). Offices of public authorities have an even lower acceptance rate for cash payments (48%).

**Acceptance of cashless means of payment has increased in recent years.** Overall, respondents reported that 81% of payments at physical payment locations covered by the study could have been made using a cashless means of payment. This figure has risen by 20 percentage points since the survey in 2021. *Figure 5.1.6* shows that, based on the information reported by respondents, acceptance of cashless means of payment has increased across all payment locations.

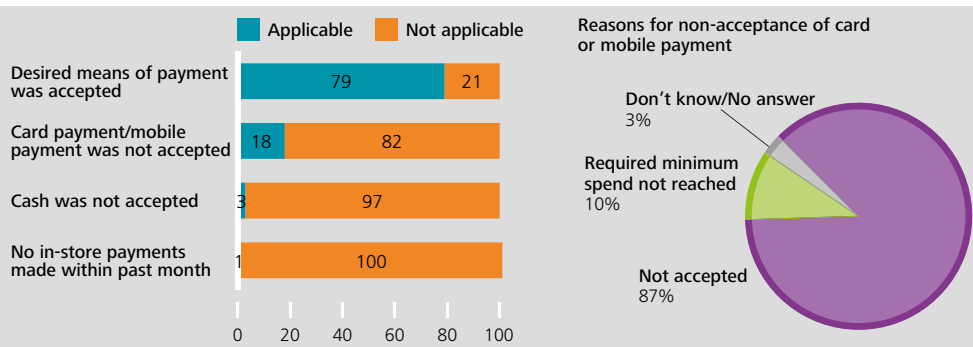
**This development is mainly being driven by restaurants, cafés, bars, the services sector and retail outlets.** For example, acceptance of cashless payments in the services sector and in the food and beverage hospitality sector (restaurants, cafés, bars) has increased significantly by around 20 percentage points in each case. For instance, mobile card terminals that can be purchased at relatively low cost are now cropping up in an increasing number of payment locations.<sup>19</sup> Other payment locations, such as petrol stations, the offices of public authorities and retail stores, al-

<sup>19</sup> See Der SumUp-Faktor: Warum Visa jetzt mehr Akzeptanz-Stellen hat als die Girocard ([finanz-szene.de](https://finanz-szene.de)) (paywall).

### Acceptance issues

Fig. 5.1.7

%, as reported by respondents, multiple answers possible



Basis: Respondents in subgroup B (n = 2,853). May fail to sum to 100 due to rounding. Question: "Regarding the in-store payments that you have made within the past month, were you always able to pay with your desired means of payment?"

Deutsche Bundesbank

Basis: Respondents in subgroup B who wanted to make a card or mobile payment but were unable (n = 514). Question: "Why were you unable to pay using a card or mobile means of payment? Was it not accepted or was there a required minimum spend that you had not reached?"

ready exhibited high acceptance rates in the 2021 survey round, and these have now risen further.

**Nevertheless, there is room for further improvement where acceptance of cashless means of payment is concerned.** For the first time, questions were asked about factors that hinder payments in day-to-day life. 18% of respondents said that over the course of the previous month there had been an occasion where they had wanted to use a card or mobile payment method to make an in-store payment but it had not been possible (see Figure 5.1.7). Most often, it was because the store in question did not accept the desired means of payment (87%). A further 10% of the cases were because the transaction amount was below the minimum spend.

**Experiencing technical problems when paying can also influence choice of payment method. The majority (89%) of respondents stated that they had not recently encountered any technical issues with the payment methods they used.**

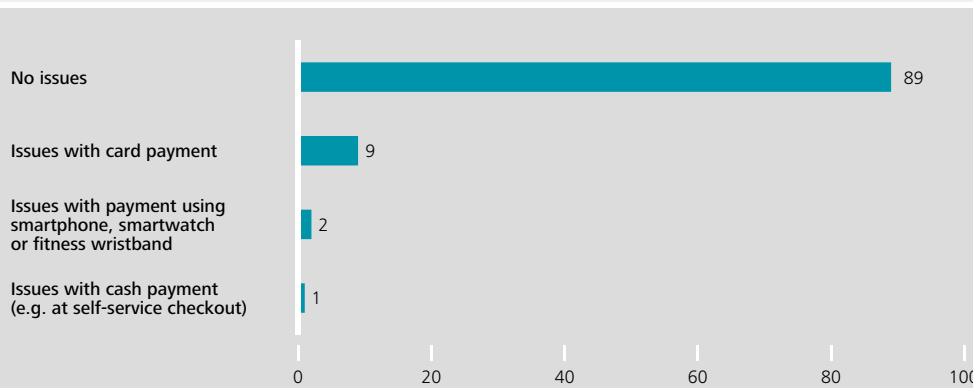
9% of respondents reported having had technical difficulties with card payments when making an in-store payment over the last month (see Figure 5.1.8). A further 2% recalled problems when paying with a mobile payment device. Respondents probably classified a range of different irregularities in the payment process as technical problems. Issues with their payment card not being accepted might then be classed as a technical difficulty. For instance, girocard debit cards are widely used by consumers (92% of respondents have at least one girocard, 21% have an international debit card without a girocard logo; see Chapter 4.1) but some places that take card payment only accept international debit cards issued by Visa or Mastercard. Meanwhile, other locations accept only girocard debit cards.<sup>20</sup> Other types of difficulties encountered in the payment process, such as not reaching the minimum spend amount (see Figure 5.1.7) or entering a wrong PIN, could also play a role in this context. The survey data do not reveal how many times technical issues actually led to the affected payment transaction being abandoned.

<sup>20</sup> For more information on the acceptance of payment cards in retail, see, for example, EHI (2024): Zahlungssysteme im Einzelhandel 2024.

### Occurrence of technical issues during payment

Fig. 5.1.8

%, as reported by respondents, multiple answers possible



Basis: Respondents in subgroup B who made an in-store payment within the past month (n = 2,817). Question: "Regarding the in-store payments that you have made within the past month, did you experience any technical issues with your means of payment?"

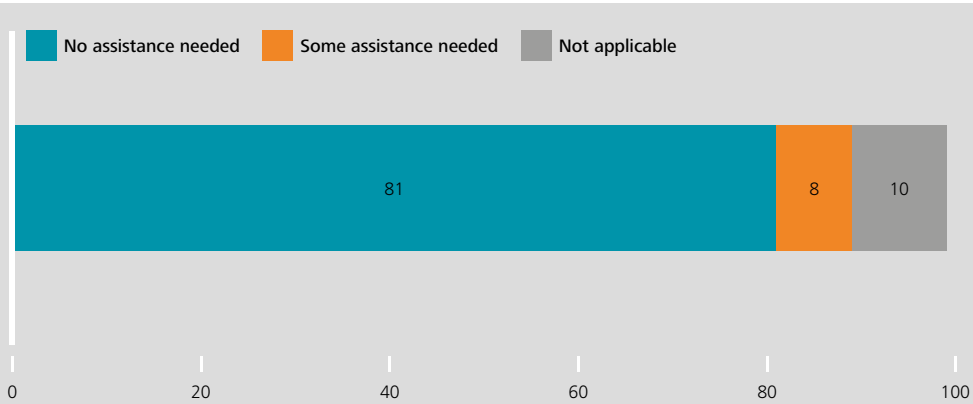
Deutsche Bundesbank



### Need for assistance with electronic payments

Fig. 5.1.9

%, as reported by respondents



Basis: All respondents (n = 5,698). May fail to sum to 100 due to rounding. Question: "Do you ever need assistance when making online, card or mobile payments?"

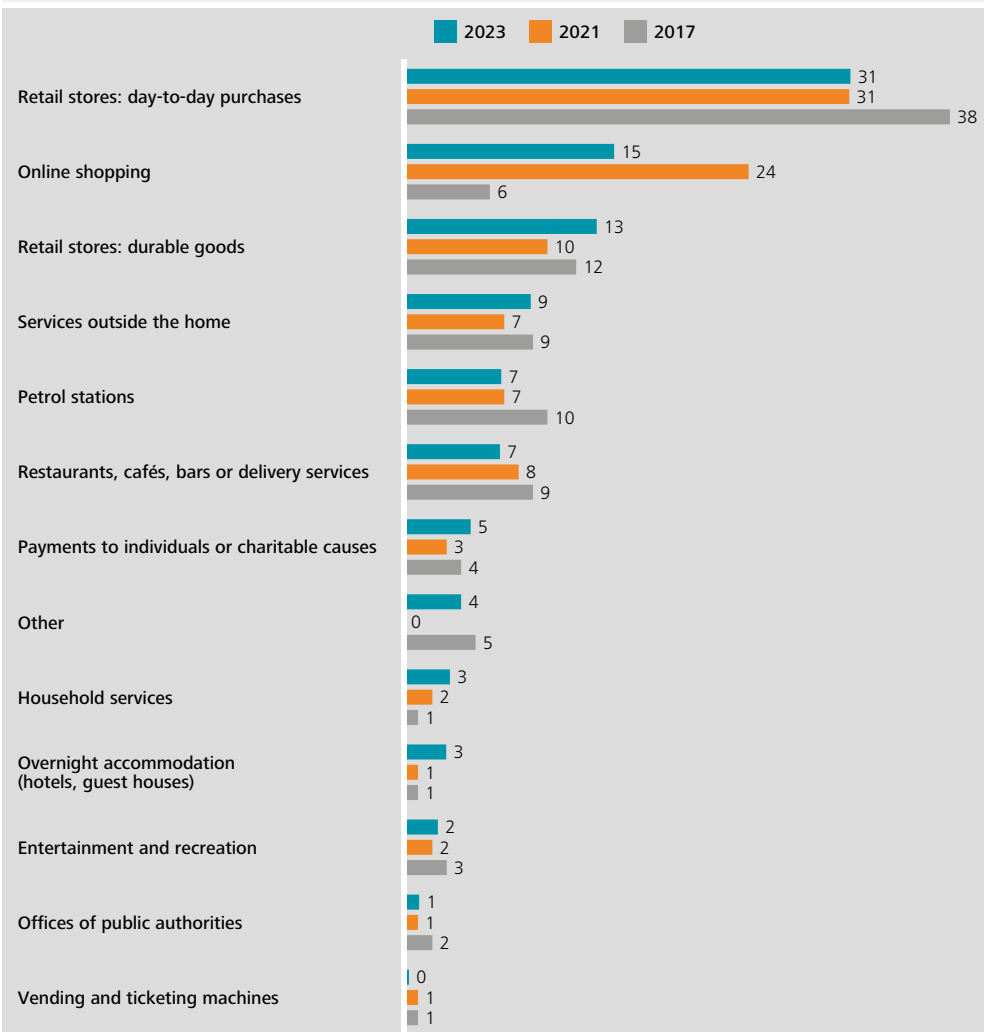
Deutsche Bundesbank

**8% of respondents need assistance with electronic payments.** 81% of respondents say they do not need any help with online, smartphone or card payments, whilst 8% occasionally require assistance (*see Figure 5.1.9*). Here, too, the replies differ depending on respondents' age. For example, the share of those who occasionally need help paying online, by card or by smartphone is highest in the group aged over 65. According to their responses, middle-aged people need the least support, with 2% of those aged 25 to 34 and 3% of those aged 35 to 44 saying they occasionally need help. By contrast, the youngest group, aged 18 to 24, needs help with electronic payments much more frequently (8% of respondents). As they enter the world of work or transition into tertiary education many are likely to find themselves needing their own bank account. This might see them having to deal with certain hurdles associated with opening it and using it for the first time.

### Significance of individual payment locations measured by turnover

Fig. 5.2.1

%, as reported in payments diary



Basis: All transactions in the payments diaries. Question: "Where was the expenditure incurred or what kind of expenditure was it, respectively?"

Deutsche Bundesbank

## 5.2 Changes in purchasing behaviour

Following the telephone interviews, participants were asked to record their payments in a diary over a period of three days. These diaries provide information on actual payment behaviour. A total of 4,036 people were willing to fill out a diary. As a result, information was collected on 15,500 transactions with a total value of €667,297.

The diaries cover a wide range of payment locations. At 31%, the largest share of turnover recorded comes from day-to-day retail purchases (e.g. supermarkets, drugstores and pharmacies), followed by online purchases (15%), retail purchases of durable goods (13%), services outside the home (e.g. going to the hairdressers (9%)), payments at petrol stations (7%) and eating and drinking out (e.g. at restaurants, cafés or bars) (7%) (see Figure 5.2.1).

Compared with 2021, the composition of expenditure has changed. Although internet use has increased overall (see the background box entitled "Internet use and online shopping" on p. 35), a significantly smaller share of recorded turnover was online (down 9 percentage points). The pandemic-driven trend towards e-commerce thus eased again in 2023.<sup>21</sup> In turn, the proportion of turnover accounted for by certain physical payment locations, such as retail stores, services and hotels or guest houses, grew slightly.

Higher prices are also affecting respondents' consumption behaviour. According to the Federal Statistical Office, the general price level rose by 14% over the period between 2021 and 2023.<sup>22</sup> 99% of respondents say that the products and services they normally buy have become more expensive over the past two years. Figure 5.2.2 shows that this is prompting a large number of respondents to adjust their consumption. 62% of those who have made changes to their purchasing behaviour buy from cheaper places, 57% monitor their spending more strictly, 53% refrain from buying certain things and 45% buy less overall. Despite these steps, respondents' daily average expenditure has increased from €52 to €57 (2017: €43), a somewhat larger rise than in previous years. The value of an average transaction has gone up from €39 to €43, while the value of an average transac-

<sup>21</sup> See Bundesverband E-Commerce und Versandhandel e. V. (bevh) (n.d.) Interaktiver Handel in Deutschland – Ergebnisse 2023, available at [Auszug\\_Bericht\\_Interaktiver\\_Handel\\_in\\_Deutschland\\_2023.pdf](https://www.bevh.de/DE/Themen/Wirtschaft/Preise/Verbraucherpreisindex/Tabellen/Verbraucherpreise-12Kategorien.html#236118). Last accessed on 27 May 2024.

<sup>22</sup> See Federal Statistical Office (n.d.) <https://www.destatis.de/DE/Themen/Wirtschaft/Preise/Verbraucherpreisindex/Tabellen/Verbraucherpreise-12Kategorien.html#236118>. October 2021 against October 2023.

### Response to inflation

Fig. 5.2.2

%, as reported by respondents, multiple answers possible



Basis: Respondents in subgroup A who stated that prices had increased or remained the same (n=2,830). Question: "The Federal Statistical Office has recorded a steep increase in the general cost of living since 2022. Which statements apply to you?" Deutsche Bundesbank

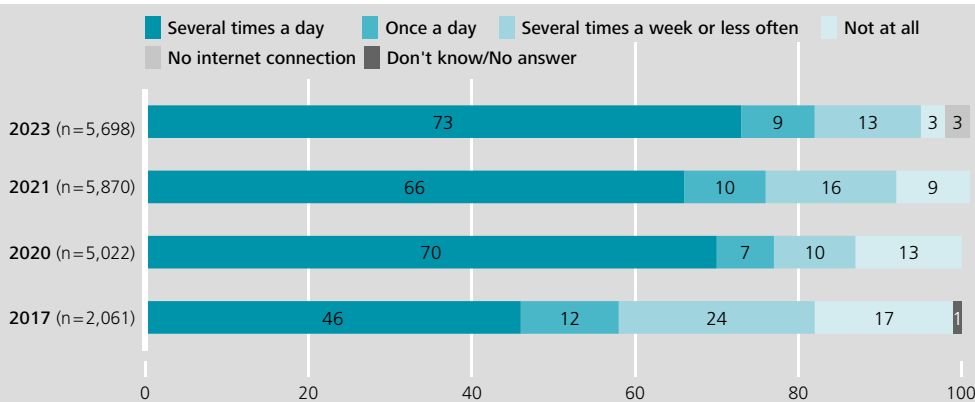
tion in a bricks-and-mortar retail setting (supermarkets, petrol stations and pharmacies) has risen from €32 to €36.

**The change in consumption behaviour could also have an impact on the use of different means of payment.** It is conceivable, for example, that some people might deliberately make greater use of a particular means of payment so as to keep better track of their expenditure. *Figure 5.2.2* shows that, owing to inflation, 20% of respondents report using cash more frequently. However, just as many say they are using payment cards more frequently, meaning that the two are likely to cancel each other out. But inflation can lead to non-deliberate changes in behaviour as well: for instance, higher prices might mean respondents get through the cash reserves in their wallet faster, which might make them switch to cashless means of payment. Generally speaking, larger payment amounts tend to be more often settled using cashless methods – this is another way in which price increases might have a negative impact on the use of cash (*see also Chapter 5.4*).

### Internet use

Fig. 5.2.3

%, as reported by respondents



Basis: All respondents. May fail to sum to 100 due to rounding. Question: "Thinking about the past three months, how often, if at all, did you use the internet?" Deutsche Bundesbank

### Background information: Internet use and online shopping

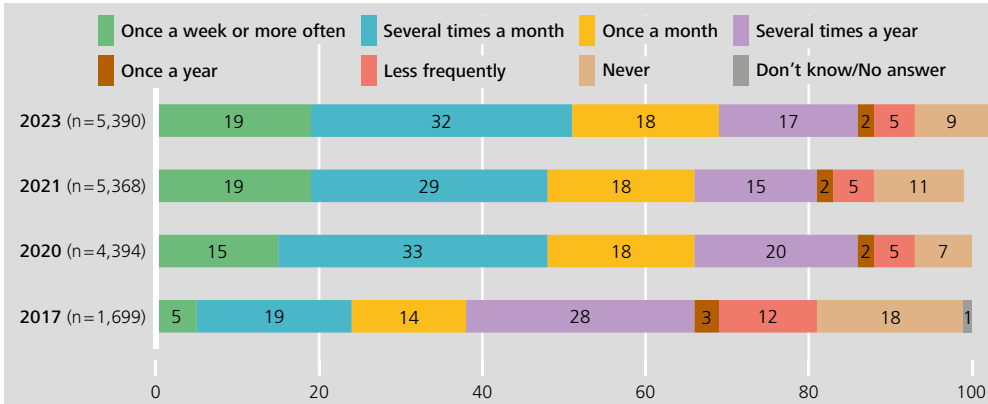
**Four out of five respondents use the internet every day.** Specifically, 82% of respondents say they use the internet at least once a day (*see Figure 5.2.3*). Internet use has thus increased once again compared with previous years. The share of those who do not use the internet or do not have access to the internet has fallen from 9% in 2021 to 6%.

**Younger people tend to use the internet more frequently than older respondents, and access to the internet increases with higher incomes.** Almost all of the young adults surveyed use the internet several times a day. By contrast, among those over 65 years of age, there is a large share (42%) who do not use the internet on a daily basis (*see Figure A.5.2.3*). There are also differences with regards to financial circumstances. While 6% of respondents with a net household income below €2,500 reported not having an internet connection, this share is close to zero for respondents with a net household income higher than €5,000.

### Internet purchase frequency

Fig. 5.2.4

%, as reported by respondents



Basis: Respondents who have used the internet in the last three months. May fail to sum to 100 due to rounding. Question: "How often do you shop online? Please also think of purchases made using an app."

Deutsche Bundesbank

**The number of people who shop online has increased.** Amongst other things, the share of internet users who never shop online fell from 11% in 2021 to 9% (see Figure 5.2.4).

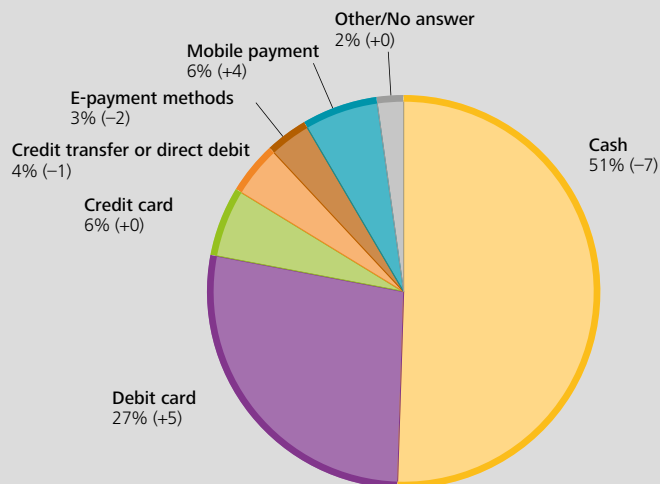
**Middle-aged people and respondents with a high income are particularly likely to shop online.** Frequency of e-commerce purchases is at its highest for the 35 to 44 age group. One-third of respondents in this age range shop online once a week or more. The outerlying age groups tend to have a lower frequency of e-commerce purchases. For example, at 15% each, the share of those who shop online once a week or more is just under half as high for 18 to 24-year-olds and 55 to 64-year-olds as in the case of those aged 35 to 44 (33%) (see Figure A.5.2.4). Frequency of e-commerce purchases increases with income. For people with a net household income higher than €5,000, the proportion of those who shop online at least once a week was also just under one-third (32%). By contrast, in the group of respondents with a net household income below €2,500, this share stands at 11%. At the same time, 17% of those belonging to that group never shop online, compared with 3% of respondents whose net household income exceeds €5,000.

### Use of payment instruments

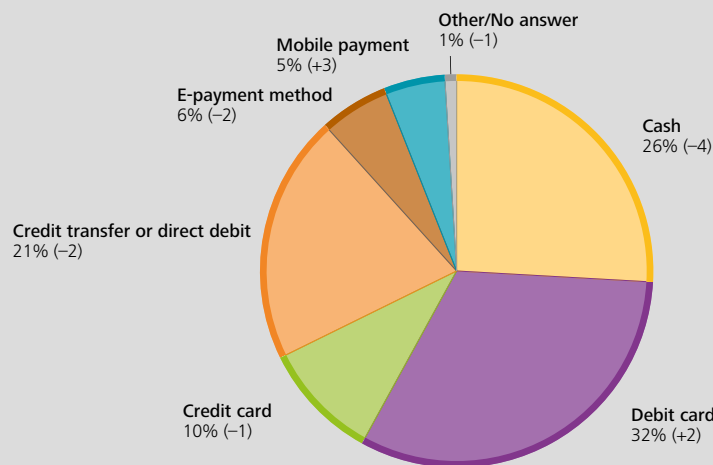
Fig. 5.3.1

% (change from 2021 in percentage points), as reported in payments diary

#### Measured by total number of transactions



#### Measured by turnover



Basis: All transactions (n=15,500, total value: €667,297).  
Deutsche Bundesbank

## 5.3 Overall use of means of payment

The diaries reveal how many purchases are made using a given means of payment and the value of these purchases. The upper portion of *Figure 5.3.1* together with *Table 5.3.1* show the share of the total transactions from the diaries paid for using cash, cards or other means of payment (percentage of transactions). The lower portion of *Figure 5.3.1* together with *Table 5.3.2* show the share of total expenditure attributable to individual means of payment (percentage of turnover).

As measured by the number of transactions, cash remains the most frequently used means of payment. Just over half of all payments are made using cash (51%), followed by 27% using a debit card. Credit cards and mobile payment methods each account for a 6% share of transactions while 4% are settled using an e-payment method and a further 4% via direct debit or credit transfer (see the upper portion of *Figure 5.3.1*).

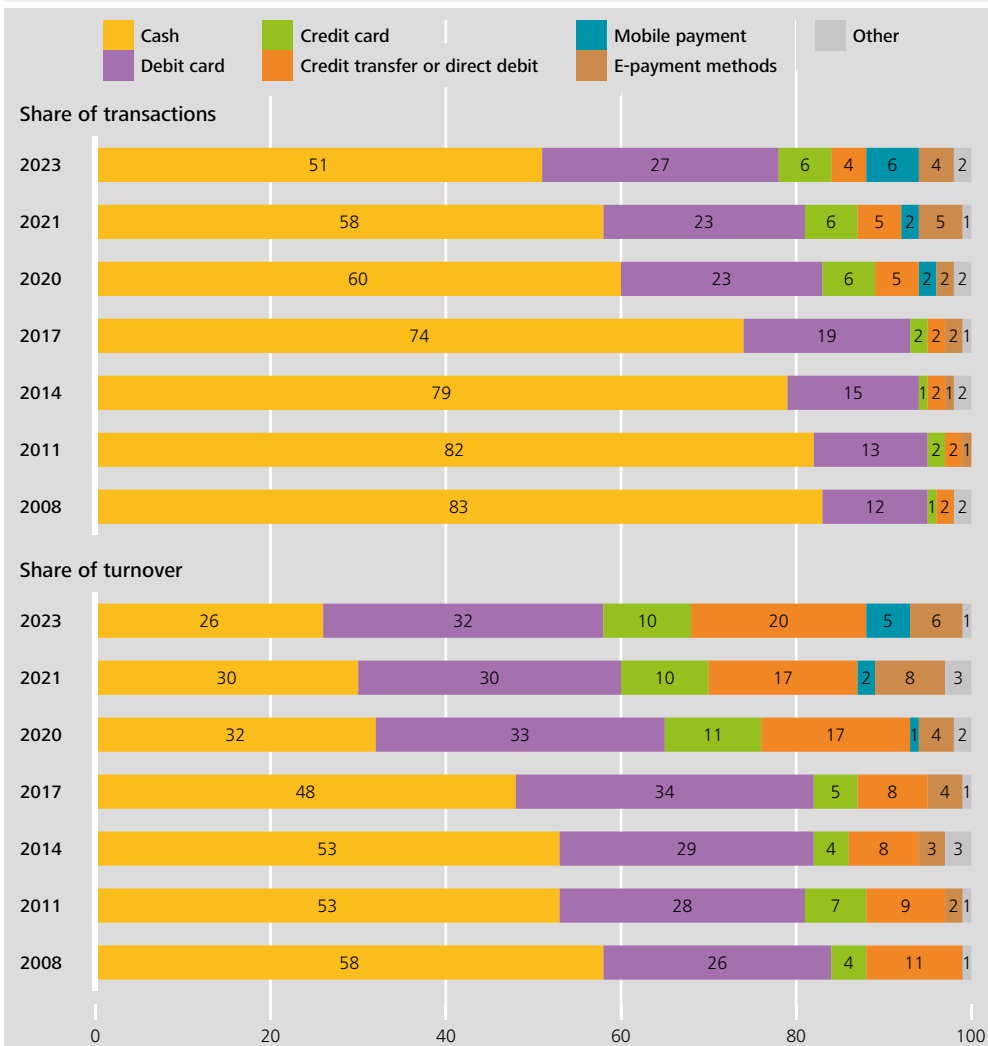
Looked at in terms of turnover, debit cards account for the largest share of spending. 32% of total expenditure is paid for using this type of card. Cash ranks second with a 26% share, followed by direct debits and credit transfers, which account for a combined share of 20% of turnover (see the lower portion of *Figure 5.3.1*).

Compared with 2021, the share of cash payments has continued to decline, while the share of debit cards and mobile payments has seen significant growth. Measured in terms of the number of transactions and by turnover, the proportion of payments settled in cash decreased by 7 percentage points and 4 percentage points, respectively (see *Figure 5.3.1*). In absolute terms, debit cards recorded the strongest growth, with their share rising by 5 percentage points. However, there is an increasing trend towards mobile payments. The share of these payments has tripled, from 2% in 2021 to 6% in the current study. The growing proportion of transactions and turnover accounted for by cashless means of payment is consistent with the shift in personal preferences in favour of cashless means of payment (see *Chapter 5.1*). Furthermore, a higher percentage of respondents perceive cashless payments to be easier and faster (see *Chapter 5.1*) than did so in 2021. This increase is also likely to have been driven by a further increase in the acceptance of cashless means of payment compared with 2021 (see the *background box entitled "Means of payment and their acceptance" on p. 31*). The now ubiquitous availability of contactless payment by card or mobile payment is worthy of particular note.

### Use of payment instruments over time

Fig. 5.3.2

%, as reported in payments diary



Basis: All transactions in the payments diaries. Note: Surveys were not conducted in the years 2009, 2010, 2012, 2013, 2015, 2016, 2018 and 2022.

Deutsche Bundesbank

The long-term evolution of shares in the payment mix reveals a downward trend for cash payments in favour of cashless means of payment. Up to 2017, the share of cash payments declined slowly but steadily. Between the 2017 and 2021 surveys, the coronavirus pandemic led to a sharp slump. This decline slowed somewhat again between 2021 and 2023, but is still pronounced at around 3.5 percentage points per year. Looked at in terms of number of transactions, the share of cashless means of payment has risen from around one-quarter to just under 50% since 2017. In turnover terms, cashless payments have gone from making up just over 50% of expenditure to accounting for around three-quarters (see Figure 5.3.2).

Payment behaviour remains heterogeneous across the population. Older persons and those with a low income tend to use more cash. For example, measured in terms of transactions, the share of payments made using cash is around 35% in the youngest age group (18 to 24 years) but 64% in the oldest group (65 years or older) (see Figure A.5.3.1). Individuals belonging to the lowest income bracket (with a net household income of less than €2,500) use cash for 59% of their payments, while those from the highest income bracket (with a household income of more than €5,000) use cash for only 39% of payment transactions (see Figure A.5.3.2).

Mobile payment methods take up a higher than average share among the younger respondents. Measured by number of transactions, the share of payments settled using mobile payment methods almost tripled in the 18 to 24 age group, rising from 4% to 11%, and actually increased from 4% to 14% in the case of 25 to 34-year-olds (see Figure A.5.3.1). Significantly more mobile payment transactions were recorded for all other age groups, too. For example, 45 to 54-year-olds used mobile payment methods for 8% of their payments (a fourfold increase on 2021) and the proportion among 55 to 64-year-olds rose from 1% to 3%. The share of mobile payment methods is twice as high for males as for females (8% vs 4%) (see Figure A.5.3.3).

Growth in the share of payments made using debit cards can be seen across almost all age groups. The increase is particularly pronounced in the case of those aged 18 to 24, though, where the share rose from 23% to 38% compared with 2021. With regard to income, it is striking that higher earners use credit cards more frequently; this is consistent with the fact that these types of cards are more available to these income groups (see Figure A.5.3.1 and A.5.3.2).

## Share of payment instruments by number of transactions

Tab. 5.3.1

%, as reported in payments diary

Payment instrument	Share			
	2023	2021	2020	2017
Cash payment	50.5	57.8	60.1	74.3
Card payments				
Debit card	27.5	22.6	23.1	18.9
with PIN/signature	6.8	7.0	12.2	18.4
contactless	20.4	15.1	10.8	0.5
online	0.3	0.5	0.1	
Credit card (incl. prepaid)	5.7	6.2	6.0	1.6
with PIN/signature	0.8	1.2	1.2	1.5
contactless	3.7	3.2	3.5	0.1
online	1.2	1.8	1.3	
Other card	1.6	1.0	1.2	0.3
Other cashless payments				
Credit transfer	2.2	2.5	2.4	1.3
Direct debit	2.1	1.9	2.2	0.6
E-payment methods	3.5	5.0	2.0	1.9
of which PayPal	3.0	4.2	1.8	
Mobile payment methods	6.2	2.1	2.0	0.1
of which Apple Pay/Google Pay	3.7	1.7	1.3	
Other/Payment instrument not stated	0.6	1.0	1.0	1.0
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Basis: All transactions from the payments diaries.

Deutsche Bundesbank

## Share of payment instruments by turnover

Tab. 5.3.2

%, as reported in payments diary

Payment instrument	Share			
	2023	2021	2020	2017
Cash payment	25.9	29.9	31.9	47.6
Card payments				
Debit card	32.1	29.9	32.8	34.9
with PIN/signature	10.7	11.6	22.8	34.0
contactless	21.1	16.3	9.9	0.9
online	0.3	2.1	0.1	
Credit card (incl. prepaid)	9.7	10.4	10.8	4.6
with PIN/signature	1.6	2.6	1.8	4.4
contactless	5.8	4.6	4.3	0.2
online	2.3	3.3	4.7	
Other card	0.4	0.3	0.7	0.1
Other cashless payments				
Credit transfer	17.0	15.0	13.7	5.6
Direct debit	3.5	3.7	3.5	2.4
E-payment methods	5.7	7.7	4.1	3.7
of which PayPal	4.7	6.0	3.6	
Mobile payment methods	5.0	1.6	1.5	0.0
of which Apple Pay/Google Pay	2.5	1.0	1.0	
Other/Payment instrument not stated	0.6	1.6	1.1	1.1
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

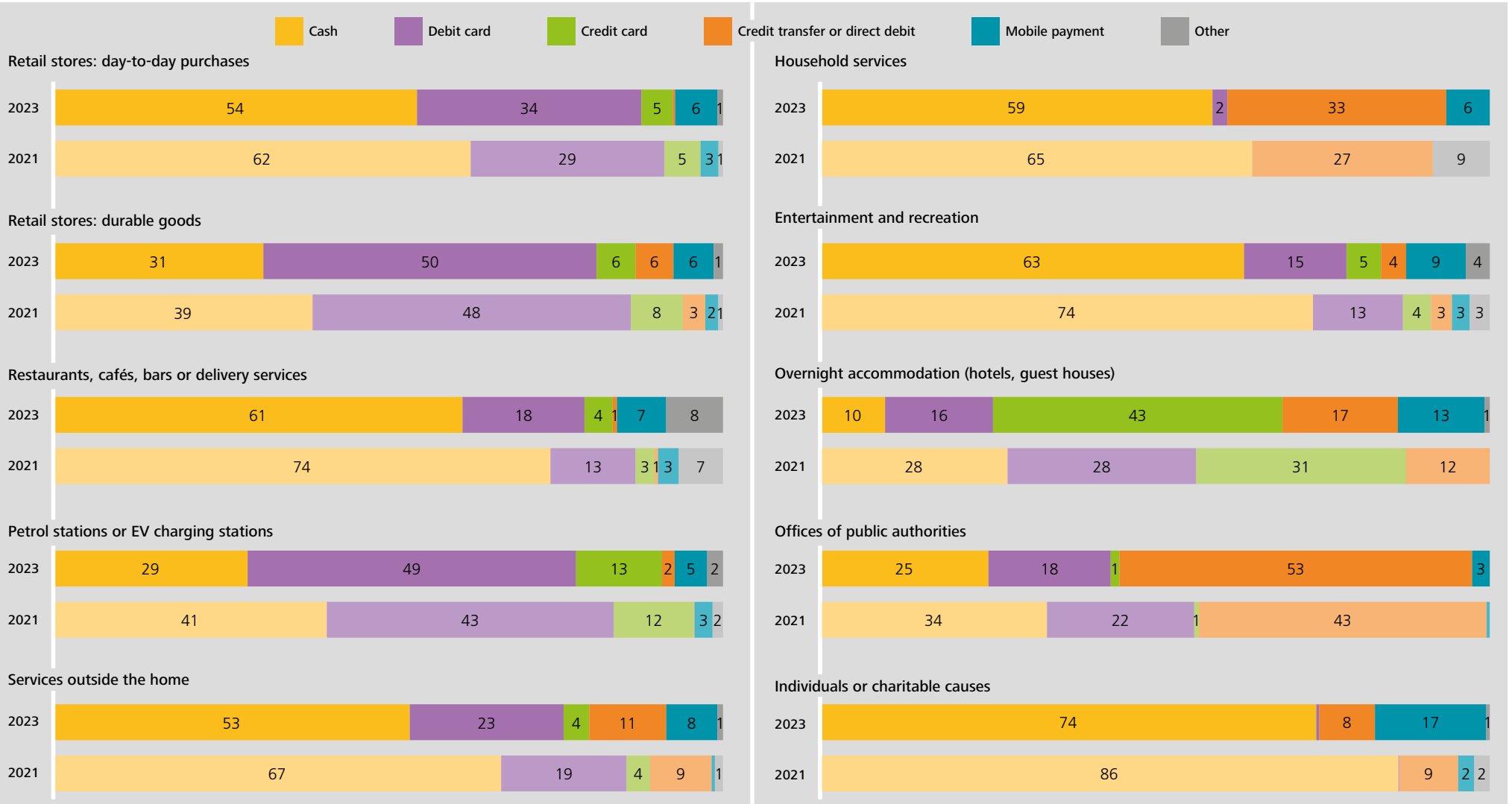
Basis: All transactions from the payments diaries.

Deutsche Bundesbank

### Use of payment instruments by expenditure type and location

Fig. 5.4.1

Percentage of transactions, as reported in payments diary



Basis: All transactions in the payments diaries.  
Deutsche Bundesbank

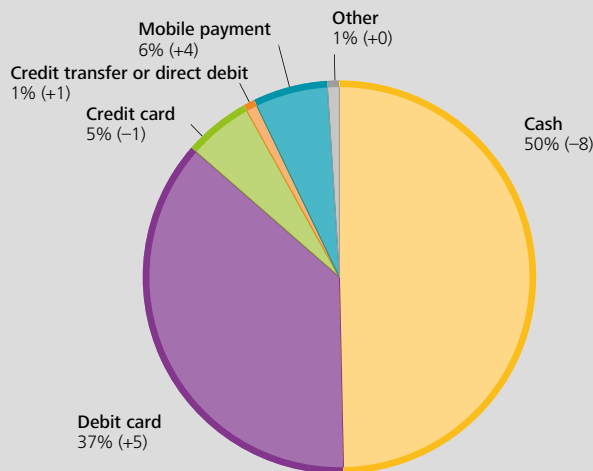


### Use of payment instruments in bricks-and-mortar retail stores (POS)

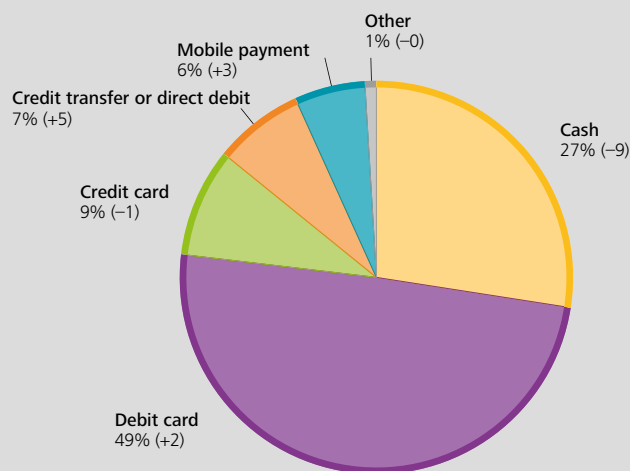
Fig. 5.4.2

% (change from 2021 in percentage points), as reported in payments diary

#### Measured by total number of transactions



#### Measured by turnover



Basis: Transactions at retail stores and petrol stations (n = 9,499, total value: €341,974).

Deutsche Bundesbank

## 5.4 Use of means of payment by place of payment and amount of payment

Payment behaviour varies greatly depending on the place of payment. [Figure 5.4.1](#) shows the transaction shares of each means of payment broken down by the expenditure categories in the diaries. Cash use is still disproportionately high when it comes to making day-to-day retail purchases, eating out, paying for recreational activities and services and for making person to person payments. In the case of day-to-day retail purchases, this is likely to be because the payment amounts involved are smaller, and smaller sums tend to be paid in cash.<sup>23</sup> For the other categories mentioned, the technical setup for cashless payment may not always be in place ([see the background box entitled “Means of payment and their acceptance” on p. 31](#)).

Depending on the place of payment, debit cards, credit cards or credit transfers and direct debits are the most commonly used cashless means of payment. Debit cards are used comparatively frequently in retail stores for day-to-day purchases and outlets for durable goods as well as at petrol stations. In more than half of cases, payments to offices of public authorities are made by credit transfer or direct debit. Household services are also typically paid for either in cash or by credit transfer/direct debit, especially because payees often do not carry devices that enable them to accept card payments. Credit cards remain the most frequently used way of paying for overnight accommodation. This sector has seen credit cards gain a particularly large amount of ground, particularly at the expense of debit cards. In addition, as in previous years, credit cards are used more frequently than on average at petrol stations – a location where acceptance of credit cards is traditionally high. Mobile payment methods continue to play a minor role overall, but are featuring significantly more frequently in all expenditure categories covered in the diaries than was the case two years ago.

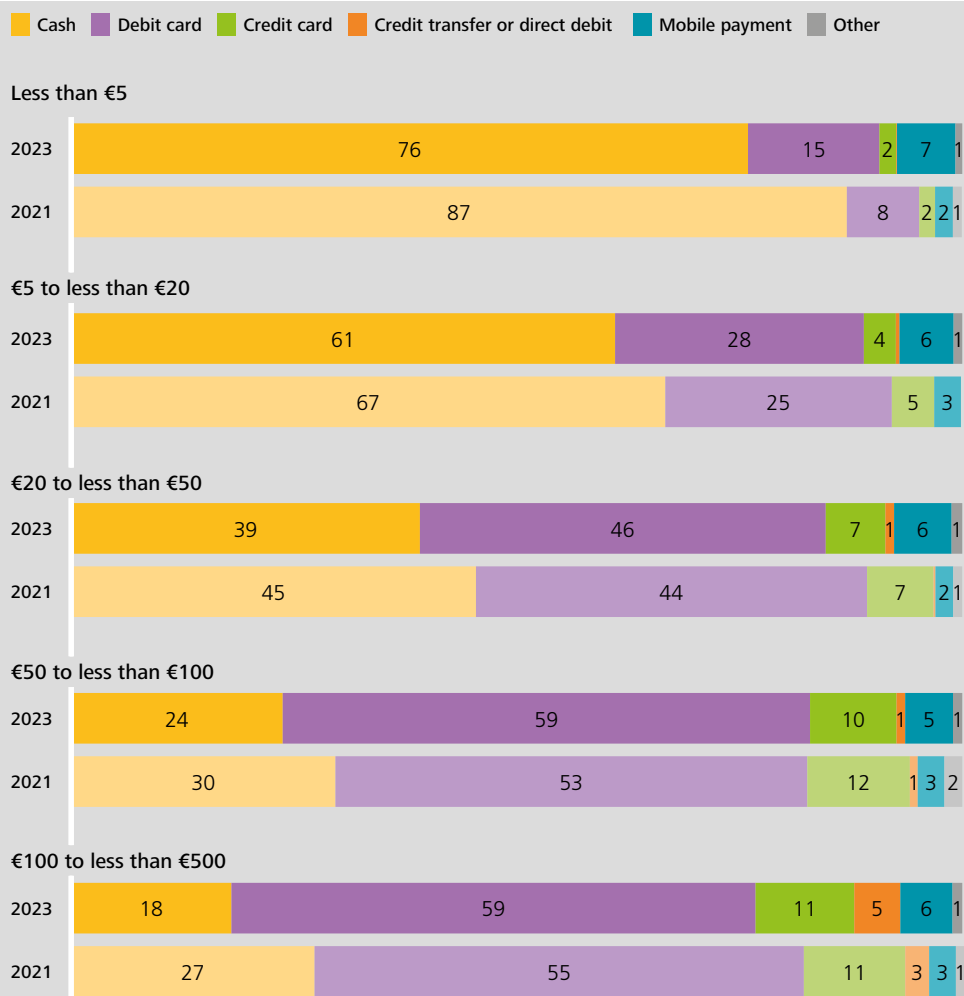
The bricks-and-mortar retail sector (i.e. all retail outlets and petrol stations) paints a particularly informative picture where the assessment of payment behaviour is concerned. First, this area accounts for around two-thirds of transactions and about one-half

<sup>23</sup> For more on the relationship between payment behaviour and payment amount, [see Figure 5.4.3](#).

### Use of payment instruments in bricks-and-mortar retail stores by transaction amount

Fig. 5.4.3

Percentage of transactions, as reported in payments diary



Basis: Transactions at retail stores and petrol stations (2023: n = 9,499, total value: €341,974; 2021: n = 9,153, total value: €287,740).

Deutsche Bundesbank

of turnover. Second, consumers making payments in these settings often have a very broad choice of payment methods and are largely free to choose whether they wish to use cash or a cashless means of payment ([see the background box entitled “Means of payment and their acceptance” on p. 31](#)). In other words, the payment behaviour seen there is largely the product of decisions made by the consumer and is not constrained by a lack of acceptance on the part of retailers.

**Cash is also the most frequently used means of payment in physical retail, making up 50% of transactions.** However, as shown in [Figure 5.4.2](#), the share of cash payments has shrunk further (down 8 percentage points). This means that consumers’ propensity to pay in cash has also fallen significantly in shops where there is a high degree of freedom of choice. Of the cashless means of payment, debit cards are the most frequently used option, accounting for 37% of transactions. Their share increased by 5 percentage points compared with 2021. The share of mobile payment methods actually tripled from 2% to 6% over the same period.

**Looking at turnover, cashless means of payment dominate in the bricks-and-mortar retail sector, with a share of just under three-quarters.** Debit cards are by far the most important means of payment, accounting for 49% of turnover. Cash follows in second place, with a share of 27% ([see Figure 5.4.2](#)).

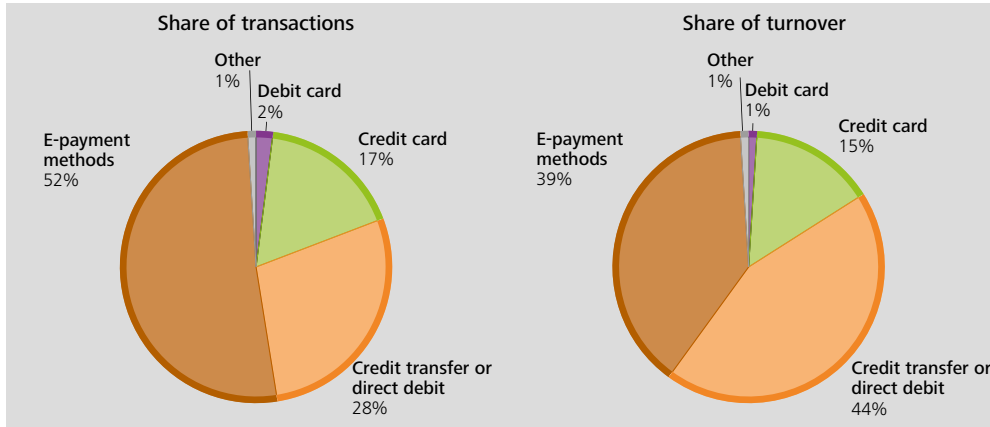
**Payment behaviour in physical retail stores varies greatly depending on the payment amount: small sums are mainly paid with cash, while larger amounts are more often settled using a debit card.** However, the share of cash payments fell across all amount bands compared with 2021 ([see Figure 5.4.3](#)). Smaller amounts are now also being paid more frequently using cashless means of payment.

**Given the observed relationship between higher payment amounts and a lower propensity to pay in cash, it is possible that inflation might have led to a lower proportion of cash payments.** If inflation pushes up the average amounts at checkout, cash gets used less frequently. The evolution of average payment amounts points to this very effect. For example, the average payment amount in bricks-and-mortar retail rose from €32 in 2021 to €36 in 2023, while the average value of cash transactions remained the same at around €20. The increased amounts were thus more often paid using cashless means of payment.

### Use of payment instruments online

Fig. 5.4.4

%, as reported in payments diary



Basis: Online transactions (n = 1,055, value = €97,675). May fail to sum to 100 due to rounding.  
Deutsche Bundesbank

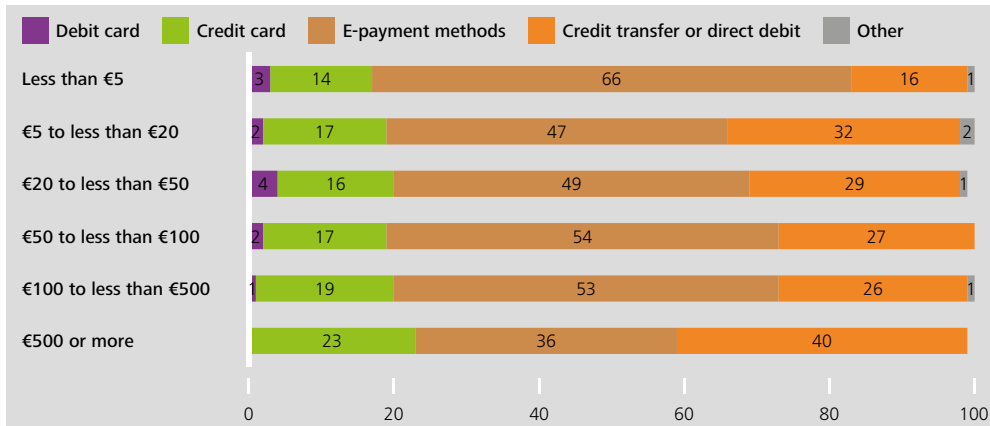
In terms of frequency, mobile payment methods feature to a similar degree across all amount categories and are also relatively popular for small amounts. The share of mobile payment methods is in the single-digit range across all amount bands (2% to 7%) and, at 7%, is at its highest for small amounts below €5. By contrast, the share of debit cards rises significantly as the payment amount goes up. If mobile payments become even more prevalent in the future, they might contribute to a further weakening of the traditional correlation between payment amount and the proportion of payments settled in cash (smaller amounts tend to be paid in cash and large amounts tend to be paid cashless, see above). As is the case with debit cards, the share of payments settled by credit card increases as the payment amount rises. While 2% of small amounts below €5 are paid by credit card, 11% of the amounts above €100 are paid using that means of payment.

The majority of online payments are made using e-payment methods such as PayPal, Klarna, Amazon Pay and giropay/paydirekt. As Figure 5.4.4 shows, e-payment methods are the most widely used means of payment on the internet in terms of their share in the number of transactions (51%); they are followed by traditional direct debits and credit transfers (28%) and credit cards (17%). There has been relatively little change in payment behaviour on the internet compared with 2021. None of the payment methods saw their share rise or fall by any more than 2 percentage points.

### Use of payment instruments online by transaction amount

Fig. 5.4.5

%, as reported in payments diary



Basis: Online transactions (n = 1,055, value = €97,675). May fail to sum to 100 due to rounding.  
Deutsche Bundesbank

Direct debits and credit transfers account for the largest share of money spent on the internet. They account for 44% of the measured turnover, while 39% of turnover was paid using e-payment methods. That said, the share of e-payment methods has increased significantly compared with 2021 (up 6 percentage points), meaning that e-payment methods are being used more and more for larger amounts, too. This could reflect increased confidence in such methods.

As the payment amount increases, credit cards tend to be used more frequently on the internet. For amounts over €500, direct debits and credit transfers are the most popular option (see Figure 5.4.5). Compared with the figures from 2021, there has been an increase in e-payment method usage across all amount categories. Overall, however, payment amount has significantly less impact on what means of payment is selected than is the case in bricks-and-mortar retail stores.

**Older people tend to make more frequent use of traditional means of payment such as credit transfers and direct debits when paying for things online, while younger people more often tend towards e-payment methods.** For example, the 65 and over age group has by far the highest share of direct debits and credit transfers (38% of transactions; [see Figure A.5.4.4](#)). For buyers in this age range, confidence in these kinds of payment methods (which can also be used elsewhere apart from online) and the fact that they are used to using them are probably among the factors that play into their decision when they are choosing how they want to pay. At the same time, e-payment methods are also popular in this age group (43% of transactions), although they are used much less frequently than, for example, by those aged 18 to 24 (61%) or 25 to 34 (62%).

## 6 Trends and outlook

### 6.1 Trust in the handling of data

Whenever a cashless payment is made, various bits of data are processed electronically. Depending on the payment method and access medium selected, different firms receive access to the payment data generated. This raises the fundamental question of who respondents trust to handle these payment data responsibly.

Most respondents still primarily trust their own bank or savings bank when it comes to the responsible processing of payment data. *Figure 6.1.1* shows that 90% of respondents have the greatest confidence in their own house bank or savings bank. Compared with 2021, there was a slight decline of 2 percentage points on average here. This is mainly due to a drop in trust among those aged 35 to 45 (down 7 percentage points). As in the previous survey, one's own bank or savings bank enjoys a greater degree of trust than other banks or savings banks, which 75% of respondents trust when dealing with payment data. In particular, it is those over 65 years of age who have less confidence in other institutions (70%, [see Figure A.6.1.1](#)).

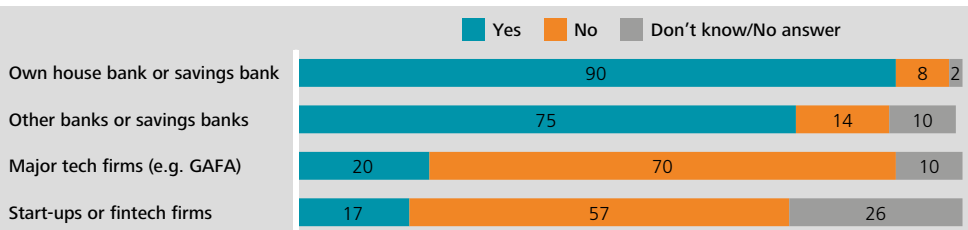
Confidence in start-ups/fintech firms and bigtech companies remains low but is growing. In 2021, 15% of respondents expressed confidence in the way technology companies such as Google, Apple, Facebook and Amazon handle their payment data. In 2023, this figure rose to 20%. Trust in start-ups and fintech firms has also risen (17%, up 4 percentage points). What is striking here is that younger respondents in particular place greater trust in start-ups and fintech firms than in technology companies. In the case of those aged 35 to 44, trust is equally distributed across both categories. From the age of 45, tech firms are deemed more trustworthy than fintech companies.

When asked about privacy concerns in the context of digital banking transactions, no clear picture arises. 40% of respondents say they are not concerned about their privacy when conducting banking business. By contrast, 37% are concerned that their data might be used for commercial purposes (*see Figure 6.1.2*). 28% of respondents want transactions to be more anonymous. In both categories, it is those aged 35 to 64 who have most concerns about their privacy.

#### Responsible handling of payment data

Fig. 6.1.1

%, as reported by respondents



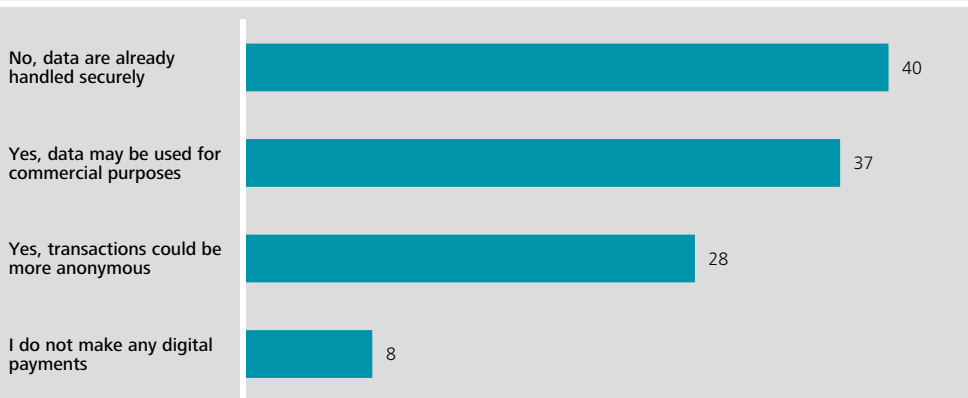
Basis: Respondents in subgroup B (n=2,853). May fail to sum to 100 due to rounding. Question: "I am now going to name various institutions. Do you believe that they handle your payment data responsibly?"

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#### Concerns about privacy

Fig. 6.1.2

%, as reported by respondents, multiple answers possible for "Yes" answers



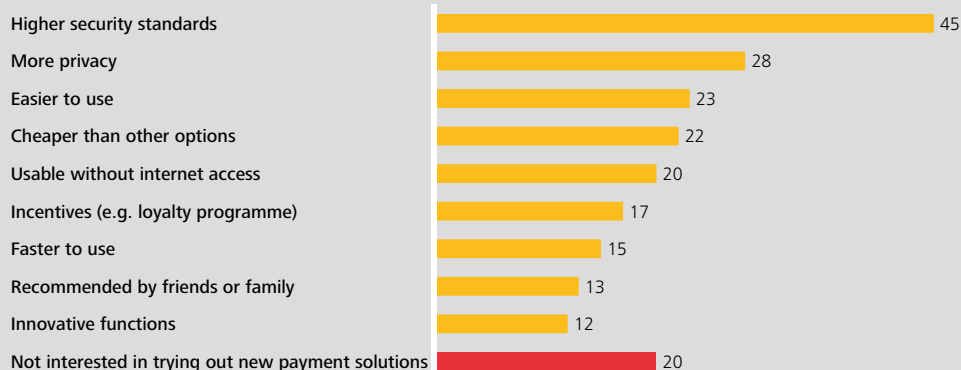
Basis: All respondents (n = 5,698). Question: "In your digital payments or other bank transactions, do you have concerns about your privacy?"

Deutsche Bundesbank

### Reasons to try out new payment solutions

Fig. 6.2.1

%, as reported by respondents



Basis: Respondents in subgroup B (n= 2,853). Question: "What are the main factors that would convince you to try out a new payment solution?"

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## 6.2 New developments in cashless payments

Current technological innovations and associated market expectations shape the demands placed on cashless payments, and there are a host of different motives that may drive people to utilise new payment options. 45% of respondents see higher security standards as a something that would encourage them to try out a new payment solution (see Figure 6.2.1).<sup>24</sup> 28% would be motivated by greater privacy. 23% of respondents consider ease of use to be a crucial aspect and 22% are interested in cheaper payment solutions. 20% of respondents would try out a payment solution that could be used offline. 17% find payment solutions that include benefits (such as loyalty programmes) attractive. For 15% of respondents, the prospect of a faster payment process is a relevant factor in choosing to test out a new form of payment. It is striking that this criterion has particular resonance for those aged 18 to 24, with 31% of respondents in that group selecting it. 13% would try a form of payment on the basis of a recommendation from friends or family. 12% of respondents would try a payment solution because of its innovative features. 20% of respondents generally have no interest in new forms of payment.

**Instant credit transfers are payments that are available on the payee's account within ten seconds.** While contactless and mobile payments are now an integral part of everyday payments, this is not yet the case for SEPA instant credit transfers. They are available around the clock and form an essential component of the EU retail payments strategy.<sup>25</sup> A new EU regulation will foster their importance in the future.<sup>26</sup> From 2025, all payment service providers in the EU will be obliged to offer instant payments of this kind. The EU regulation adopted in April 2024 stipulates that, as of 2025, the fees charged for SEPA instant credit transfers may not be any higher than those for standard SEPA credit transfers.<sup>27</sup>

**Awareness of instant payments has continued to rise.** 80% of respondents say they can use SEPA instant credit transfers (up 4 percentage points), as Figure 6.2.2 shows. 4% of re-

<sup>24</sup> Multiple answers could be selected at once and respondents were not expected to rank them in order of importance.

<sup>25</sup> EU Retail Payments Strategy, available at [EUR-lex.europa.eu/legal-content/EN/TXT/PDF/?URI=CELEX:52020DC0592](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?URI=CELEX:52020DC0592).

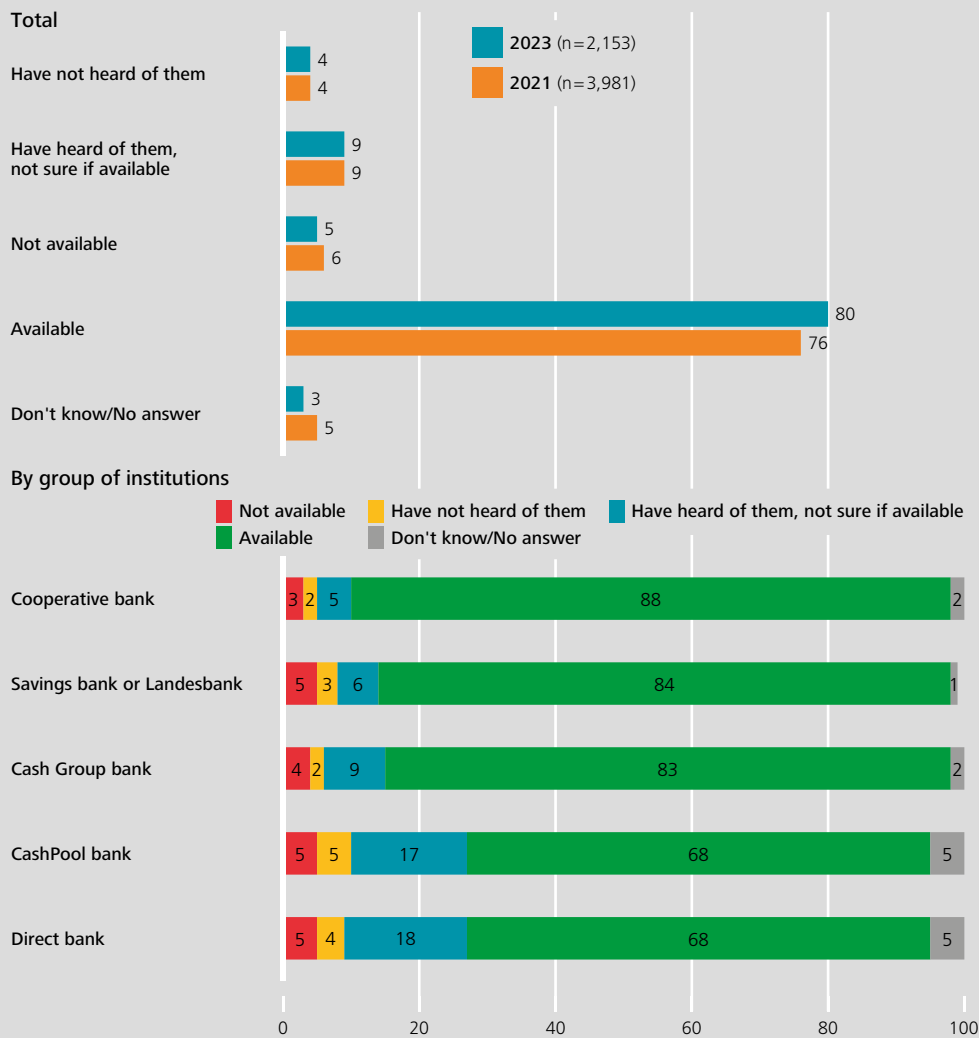
<sup>26</sup> European Parliament legislative resolution of 7 February 2024, available at: [www.europarl.europa.eu/doceo/document/TA-9-2024-0065\\_EN.html](https://www.europarl.europa.eu/doceo/document/TA-9-2024-0065_EN.html).

<sup>27</sup> European Parliament press release, [Ensuring euro money transfers arrive within ten seconds](https://www.europarl.europa.eu/press-releases/en/2024/02/ensuring-euro-money-transfers-arrive-within-ten-seconds) | News | European Parliament (europa.eu).

### Access to SEPA instant credit transfers

Fig. 6.2.2

%, as reported by respondents



Basis: Online banking users (2023: subgroup B only). Question: "A SEPA instant credit transfer can transfer money between bank accounts within seconds once the IBAN has been entered. Is this service currently available to you?"

Deutsche Bundesbank

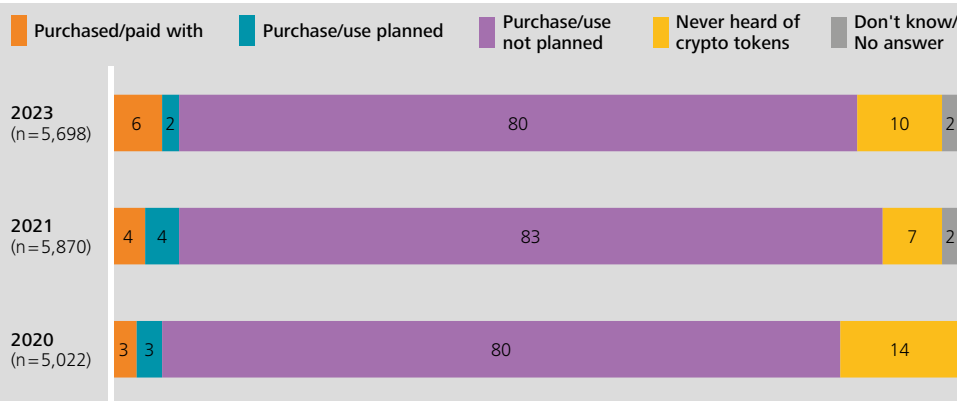
spondents (unchanged from 2021) say they are not aware of this service. A further 9% (like-wise unchanged) have heard of instant payments, but do not know whether they are available to them. 5% of survey participants do not have access to instant payments (down 1 percentage point) of respondents. Meanwhile, 3% (down 2 percentage points) gave no comment on their access to SEPA instant credit transfers.

**The availability of SEPA instant credit transfers also depends on the respondent's bank and its institutional group.** According to the survey, the availability of SEPA instant credit transfers is above 60% regardless of the institution, as shown in the lower portion of *Figure 6.2.2*. In the case of cooperative banks, savings banks and Landesbanken as well as Cash Group banks, the availability, as reported by respondents, stands at over 80%. More than 60% of respondents who hold an account with a CashPool bank or a direct bank can avail themselves of instant payments.

### Potential purchase and use of crypto tokens

Fig. 6.2.3

%, as reported by respondents



Basis: All respondents. Question: "Crypto tokens such as Bitcoin have attracted regular attention over the past few years. Which of the following statements applies to you personally?"

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## Background information: Crypto tokens

At present, there is no evidence of broad uptake among the general public where the purchase or trading of crypto tokens is concerned. Alongside traditional means of payment such as credit transfers, direct debits or cards, crypto tokens (e.g. Bitcoin) can generally also be used to make payments. The number of people who have never heard of crypto tokens before rose to 10% in the survey year, up 3 percentage points on 2021 (see Figure 6.2.3). However, 6% of respondents have bought or paid with Bitcoin or similar tokens before, double the amount in 2020 (and up 2 percentage points compared with 2021). The vast majority of respondents (80%) do not intend to purchase or use crypto tokens (down 3 percentage points).

The use of crypto tokens remains low compared with 2021. It tends to be the younger and male respondents who have experience of them. Figure A.6.2.3 shows that 13% of women and 7% of men have never heard of crypto tokens. By contrast, 10% of men and 2% of women have bought or paid with crypto tokens before. Moreover, the topic of crypto tokens seems to be of particular interest to younger people: the share of those who have bought or paid with crypto tokens or are planning to do so is at its highest in the 25 to 34 age group, at 14%. Roughly 10% of those aged 18 to 24 years and around 10% of 35 to 44-year-olds report that they have bought or used crypto tokens or are planning to do so. That share is 6% among those aged 45 to 54 and keeps going down with increasing age.

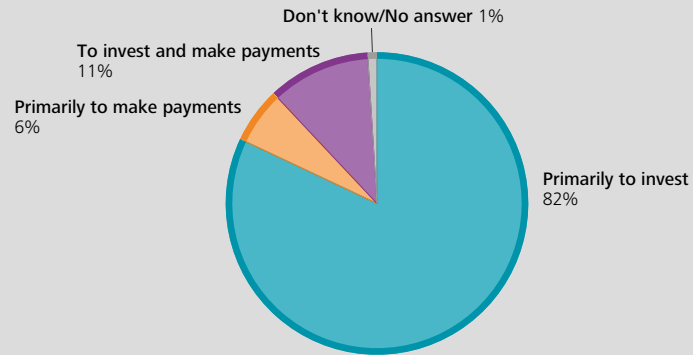
Awareness and use of crypto tokens rises along with net household income. Looked at through the lens of income, 10% of respondents with a net household income over €5,000 have bought or paid with crypto tokens (see Figure A.6.2.3). Among the group with an income of between €2,500 and €5,000, 6% of study participants have done so, compared with 3% of respondents who have an income of less than €2,500. Out of the latter group, 17% of respondents have never heard of crypto tokens. For those with a net income of €2,500 to €5,000, the corresponding figure is 8%. In the top income tier, 3% of respondents say they have never heard of crypto tokens before.



### Primary use of crypto tokens

Fig. 6.2.4

%, as reported by respondents



Basis: Respondents who have purchased or paid with crypto tokens before (n=334). May fail to sum to 100 due to rounding.  
Question: "You stated that you have purchased or used crypto tokens for payments in the past. Can you tell us the main reason for this?"

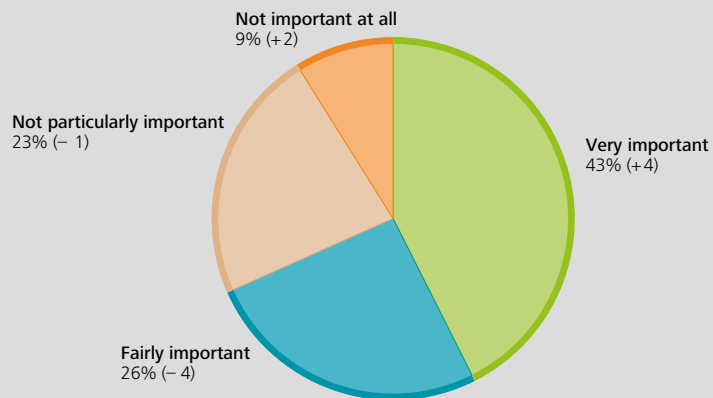
Deutsche Bundesbank

**Crypto tokens are mainly used for investment and not for payment.** 82% of those who report having bought crypto tokens or used them to pay did so mainly for investment purposes. 11% say they use the crypto tokens both as an investment and for payment. For 6%, crypto tokens serve as a means of payment. The use of crypto tokens primarily as either a form of payment or investment has declined compared with the 2021 study (down 2 percentage points and 3 percentage points respectively; see Figure 6.2.4).

### Importance of cash use

Fig. 6.3.1

% (change from 2021 in percentage points), as reported by respondents



Basis: All respondents (n=5,698). Question: "How important is it for you to have the option of using cash?"  
Deutsche Bundesbank

## 6.3 The future of cash

**Between 2021 and 2023, the share of cash payments declined significantly, as in previous years.** A general trend towards electronic means of payment has been observed since the study series began in 2008. Moreover, the impact of the coronavirus pandemic featured heavily in the findings of the 2021 study. For example, in 2021, 39% of respondents reported using cash somewhat or much less often since the start of the pandemic. And 88% of those respondents said they wanted to maintain this behaviour even after the end of the pandemic. These changes in usage patterns appear to be continuing and becoming entrenched, as shown by the renewed decline in cash use. Although the prominence of the internet as a place to shop is receding compared with 2021 and bricks-and-mortar retail stores and recreational activities are regaining importance, cash use is falling across all payment locations. This development has been significantly more pronounced since the onset of the coronavirus pandemic than was the case in previous years. The rise in price levels since 2022 may have replaced the coronavirus pandemic as a driver of declining cash use. In addition, the acceptance of cashless means of payment is rising while acceptance of cash is slightly down. It is therefore becoming easier to take for granted that one will be able to pay with cashless means of payment without needing to check with the other party whether they accept them or not. Cashless means of payment could soon be as universal as cash.

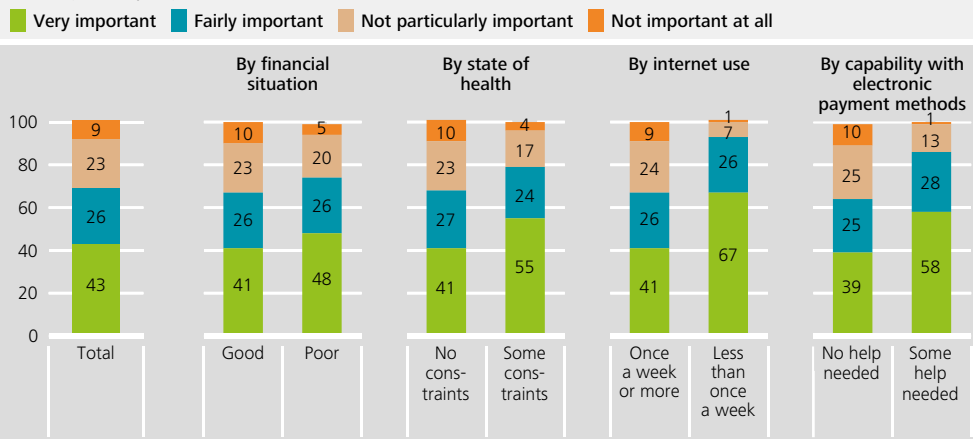
**Regardless of actual use, the importance of cash for respondents remains high.** Overall, 69% of respondents say that being able to pay in cash is fairly or very important to them (see Figure 6.3.1). That figure has stayed stable, matching its level in the 2021 survey. For 9% the possibility of using cash is not important at all. The responses here exhibit a shift towards the endpoints of the response scale: slightly more respondents than in 2021 say that being able to use cash is very important to them (up 4 percentage points), and slightly more consider it not important at all (up 2 percentage points). While there are no differences between men and women when it comes to these opinions, the share of those who find cash to be very or fairly important increases with age. A higher than average share of respondents aged 55 and above share this view.

**The proportion of people who consider cash use to be important is higher in certain parts of society than it is in others.** 74% of respondents who describe their financial situation as poor consider the possibility of using cash to be very or fairly important (respondents

### Importance of using cash by societal group

Fig. 6.3.2

%, as reported by respondents



Basis: All respondents (n=5,698). Question: "How important is it for you to have the option of using cash?"  
Deutsche Bundesbank

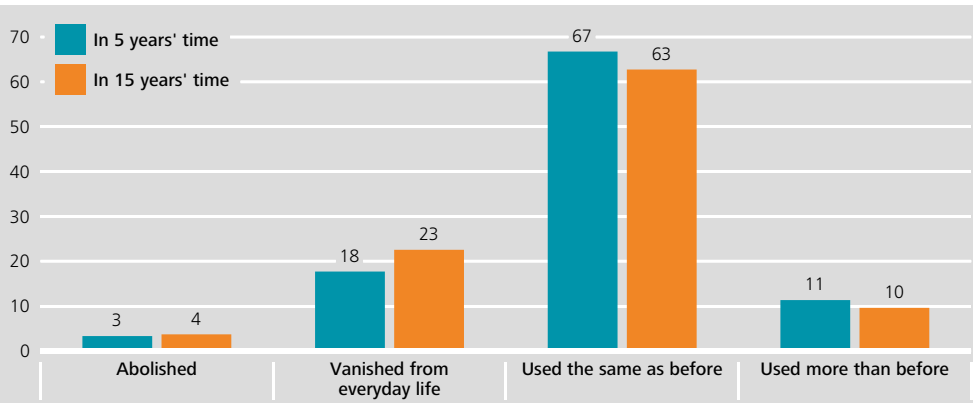
whose financial situation is good: 67%) (see Figure 6.3.2). Among those who report having health constraints this figure stands at 79%, compared with 68% for those with no such issues. When respondents say they need help using electronic means of payment, 86% regard the ability to use cash as very or fairly important (no help needed: 64%). The figure is even higher for those who use the internet less than once a week (93% compared with 67%). These attitudes are also reflected in actual behaviour. People in these groups use cash more frequently for transactions than other societal groups. This shows that cash is particularly important for the financial participation of certain groups in society.

**Overall, the majority of respondents would prefer cash to carry on being used essentially as it is today but, at the same time, they assume that cash use will decline sharply over the long term.** When asked about their wishes for 5 and 15 years' time, 67% (15 years' time: 63%) of respondents would like to see most people continuing to use cash as they do today (see Figure 6.3.3). The share of those who hope that most people will barely use cash in 15 years' time and that it will thus have vanished from everyday life is 23%. 11% (15 years' time: 10%) of respondents say they hope that cash will be used more in 5 (or 15) years' time. Only 3% (15 years' time: 4%) of respondents would like to see cash abolished in 5 (or 15) years' time. When asked about their expectations for the future in 5 years, 62% expect usage to be the same as before (see Figure 6.3.4). By contrast, when it comes to 15 years into the future, only 39% of respondents expect the use of cash to be basically the same as today. At the same time, the proportion of those who expect most people to be barely using cash anymore in 15 years' time, meaning that it has almost disappeared from everyday life, is 48%. In the short and long term, only 4% expect the use of cash to increase. 3% express the expectation that cash will be abolished in the near future (5 year horizon), while 7% expect it to happen within 15 years' time.

### Preferences regarding the future of cash

Fig. 6.3.3

%, as reported by respondents



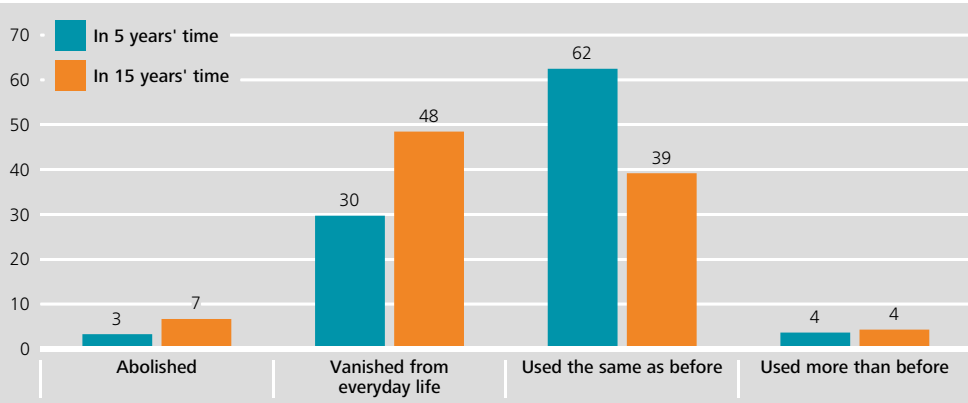
Basis: Respondents in subgroup A (n=2,845). Question: "And what would you personally like the future of cash in Germany to be in 5/15 years' time?"  
Deutsche Bundesbank

**These results show respondents' desire for a future that includes cash. Although respondents do not expect cash use to change in the short term, they do anticipate a further decline in the long term, going against their wishes.** As the study shows, a significant decline in the use of cash and a subjective deterioration in the cash infrastructure are already apparent. This fraught combination of factors carries the risk of a downward spiral, in which lower cash use and a poorer cash infrastructure could feed into and reinforce one another. Against this backdrop, cash's continued status as a means of payment that is generally accepted and accessible is not something that should be taken for granted.

### Expectations regarding the future of cash

Fig. 6.3.4

%, as reported by respondents



Basis: Respondents in subgroup A (n=2,845). Question: "In your opinion, what will the future of cash in Germany be in 5/15 years' time?"

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The Bundesbank, together with the European Central Bank and the other Eurosystem central banks, aims to ensure that euro cash remains available and generally accepted as a means of payment and store of value in the future. The European Commission's proposal for a regulation on the legal tender of euro banknotes and coins,<sup>28</sup> published in June 2023, expresses policymakers' commitment to preserving cash. At the same time, the Bundesbank ensures safe and efficient cashless payments. Consumers are therefore free to select whichever means of payment they prefer at any time.

<sup>28</sup> See [European Commission \(2023\). Proposal for a Regulation of the European Parliament and of the Council on the legal tender of euro banknotes and coins.](#)

## Annex

### Cash reserves

Tab. A.3.1.3

As reported by respondents

		Percentage of respondents who hold cash reserves	Distribution of reserve amounts (€)					
			Mean	Median	75th percentile	90th percentile	95th percentile	99th percentile
2021	All respondents	36	463	0	200	700	1 500	10 000
	Respondents who hold cash reserves		1 313	400	1 000	2 500	5 000	20 000
2023	All respondents	40	573	0	200	1 000	2 000	10 000
	Respondents who hold cash reserves		1 417	400	1 000	3 000	5 000	15 000

Basis: All respondents and respondents who stated that they hold cash reserves.

Question: "Do you personally keep extra cash?"

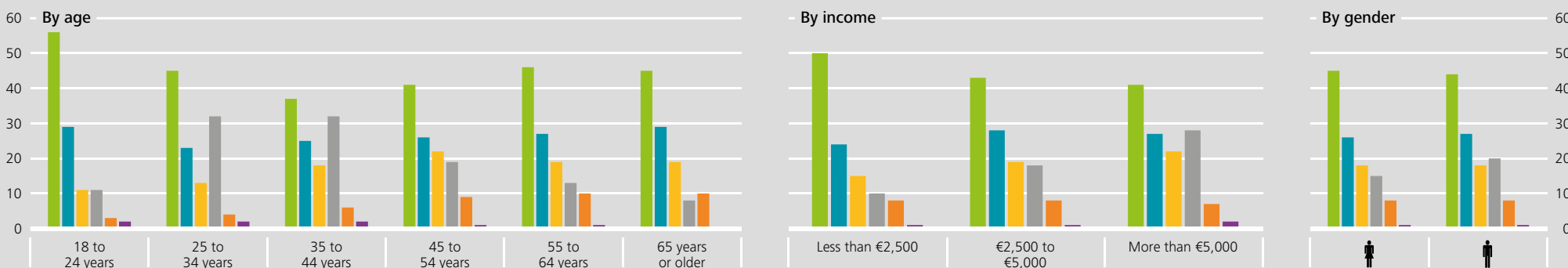
Deutsche Bundesbank

### Distribution of current accounts by group of institutions, broken down by age, income and gender

Fig. A.4.1.2

%, as reported by respondents, multiple answers possible

■ Savings bank or Landesbank
 ■ Cooperative bank
 ■ Cash Group bank
 ■ Direct bank
 ■ CashPool bank
 ■ Other<sup>1</sup>



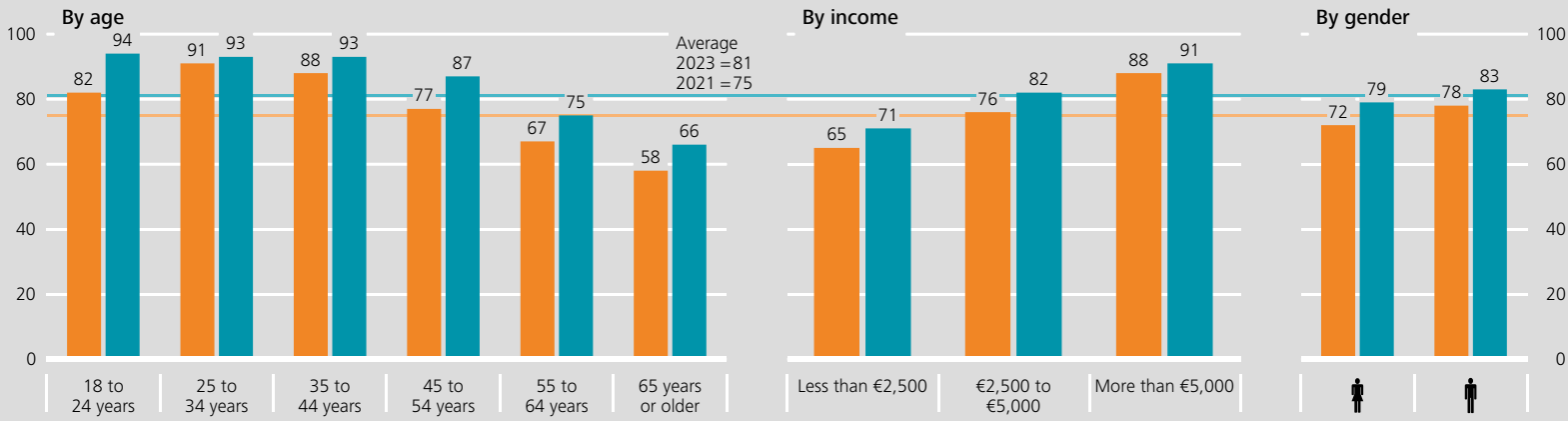
Basis: All respondents with a current account (n=5,663). Question: "Where is this current account or where are these current accounts held?" Multiple answers possible. <sup>1</sup> Including "Don't know/No answer".

Deutsche Bundesbank

### Use of online banking by age, income and gender

Fig. A.4.1.3

%, as reported by respondents ■ 2021 (n=5,359) ■ 2023 (n=5,334)

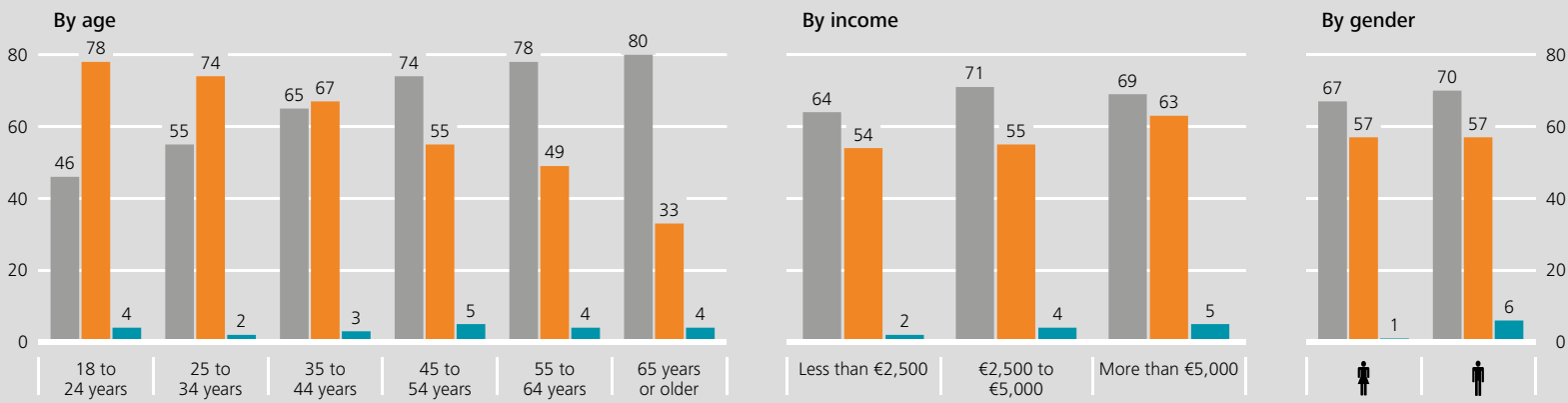


Basis: Respondents with access to a current account who have used the internet in the last three months. Question: "Do you use online banking?"  
Deutsche Bundesbank

### Online banking method by age, income and gender

Fig. A.4.1.4

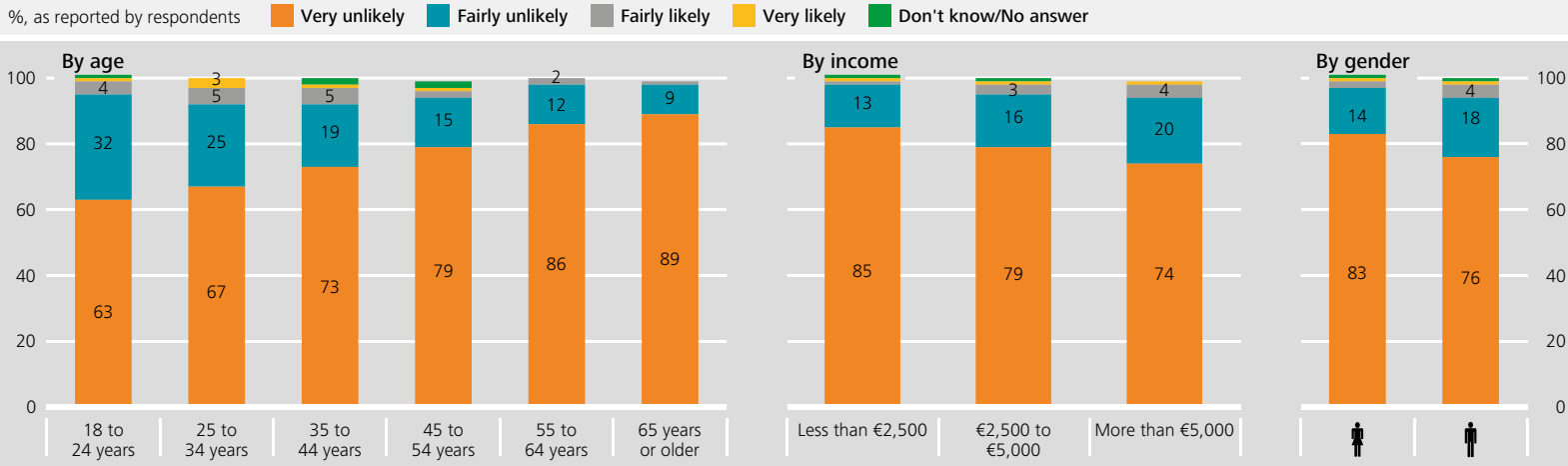
%, as reported by respondents, multiple answers possible ■ Website of bank where account is held ■ App of bank where account is held ■ Other online banking app



Basis: Respondents using online banking in subgroup B (n=2,153). Question: "How do you conduct your banking? Do you use your bank's online banking website, your bank's online banking app or an online banking app not operated by your bank?"  
Deutsche Bundesbank

### Current accounts at internet platforms by age, income and gender

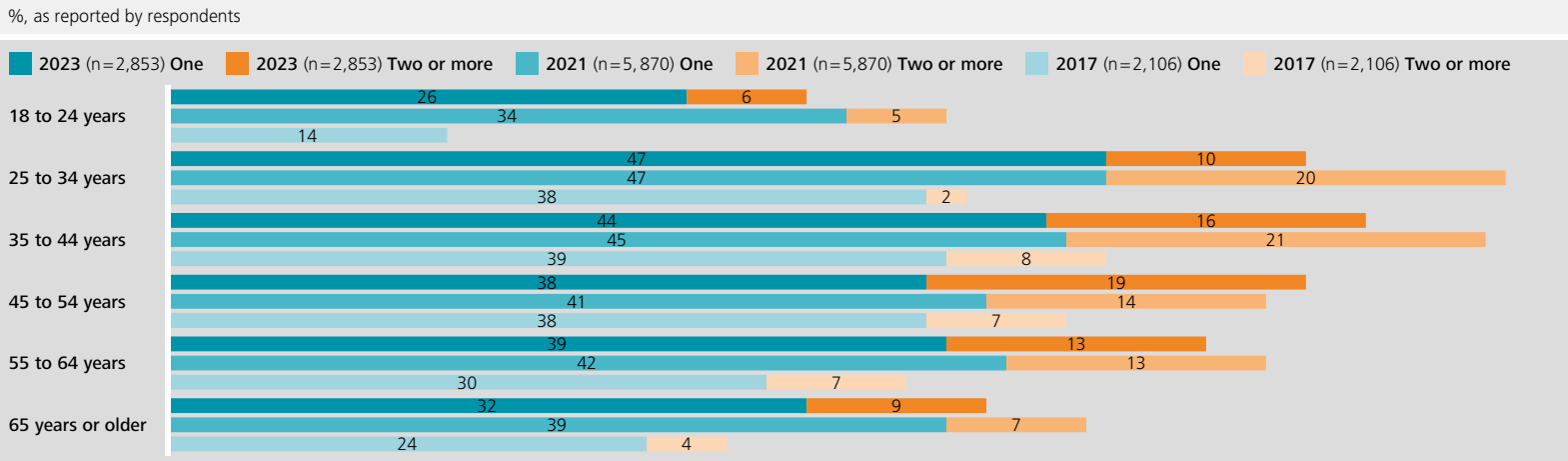
Fig. A.4.1.5



Basis: All respondents (n=5,698). Question: "Could you see yourself holding a current account with Google/Apple/Facebook/Amazon [25 % of the basis each] instead of at your bank?"  
Deutsche Bundesbank

### Number of credit cards by age

Fig. A 4.2.2a

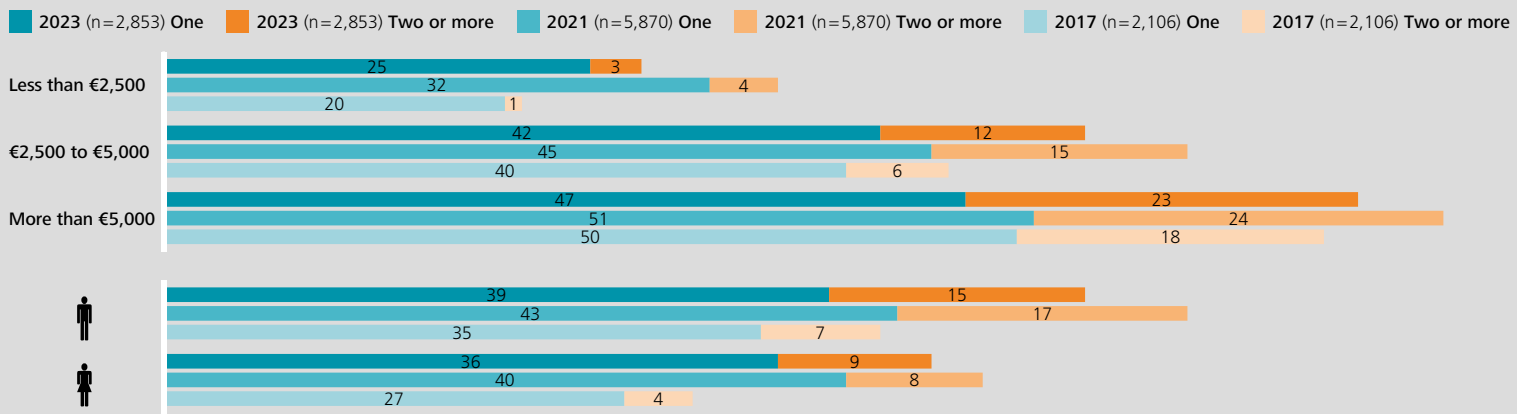


Basis: Respondents in subgroup B. Question: "Which of the following cards with a payment function do you own, and how many?"  
Deutsche Bundesbank

### Number of credit cards by household income and gender

Fig. A.4.2.2b

%, as reported by respondents

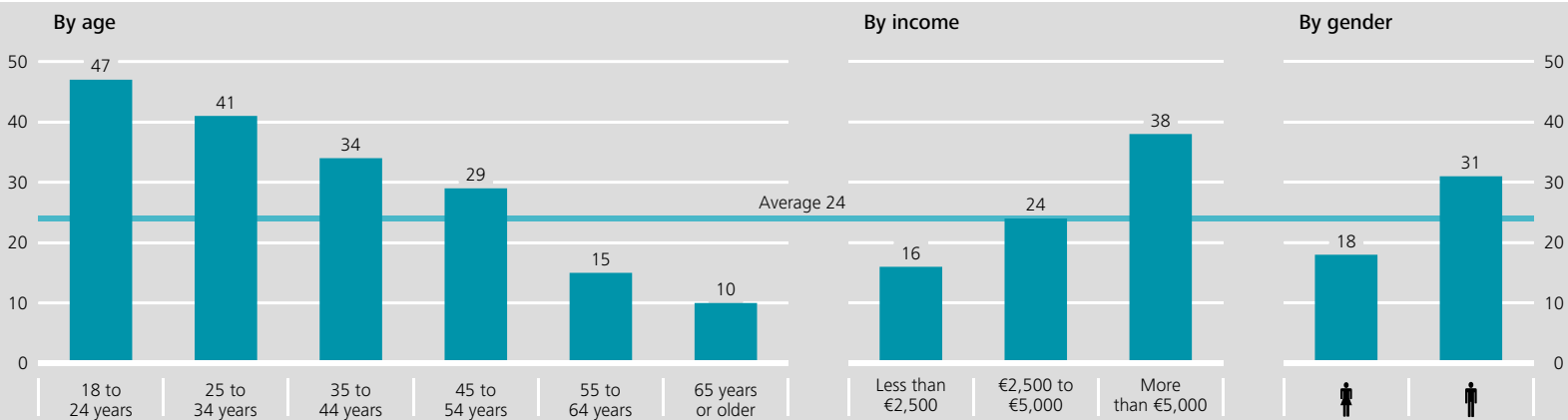


Basis: All respondents. Question: "Which of the following cards with a payment function do you own, and how many?"  
Deutsche Bundesbank

### Debit or credit card saved to a payment app

Fig. A.4.2.3

%, as reported by respondents

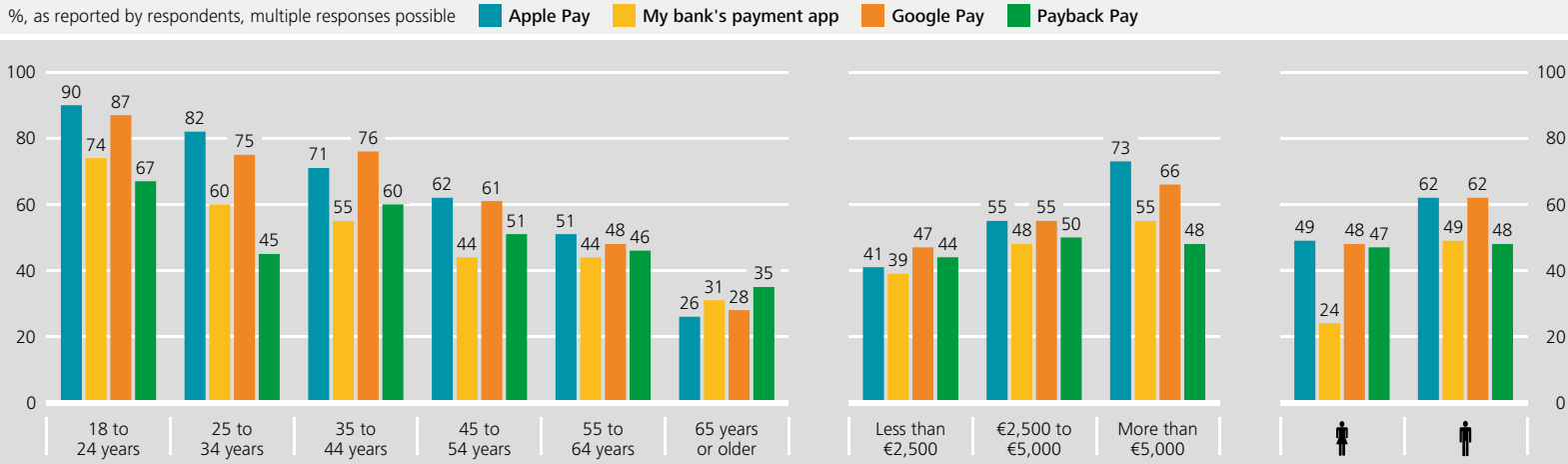


Basis: Respondents who own at least one debit card (n = 5,531) or credit card (n = 2,942). Question: "Have you added one or more of these cards to an app for mobile payments?"  
Deutsche Bundesbank



### Familiarity with mobile payment methods by age, income and gender

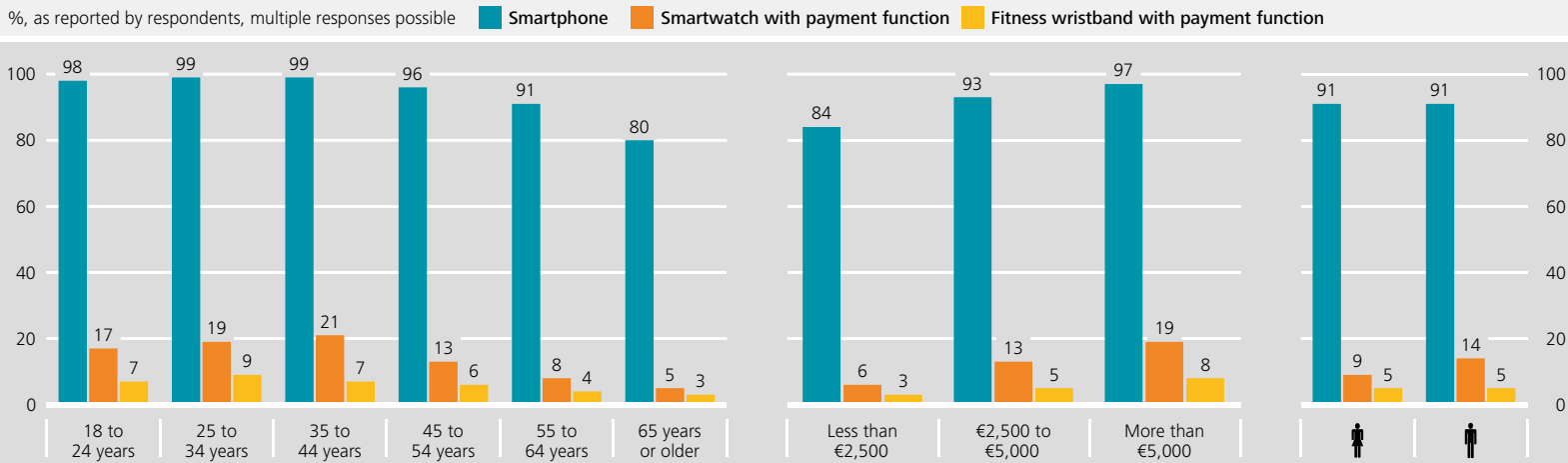
Fig. A.4.3.1



Basis: All respondents of sub-group B (n = 2,853). Question: "With which of the methods shown are you familiar?"  
Deutsche Bundesbank

### Ownership of mobile devices by age, income and gender

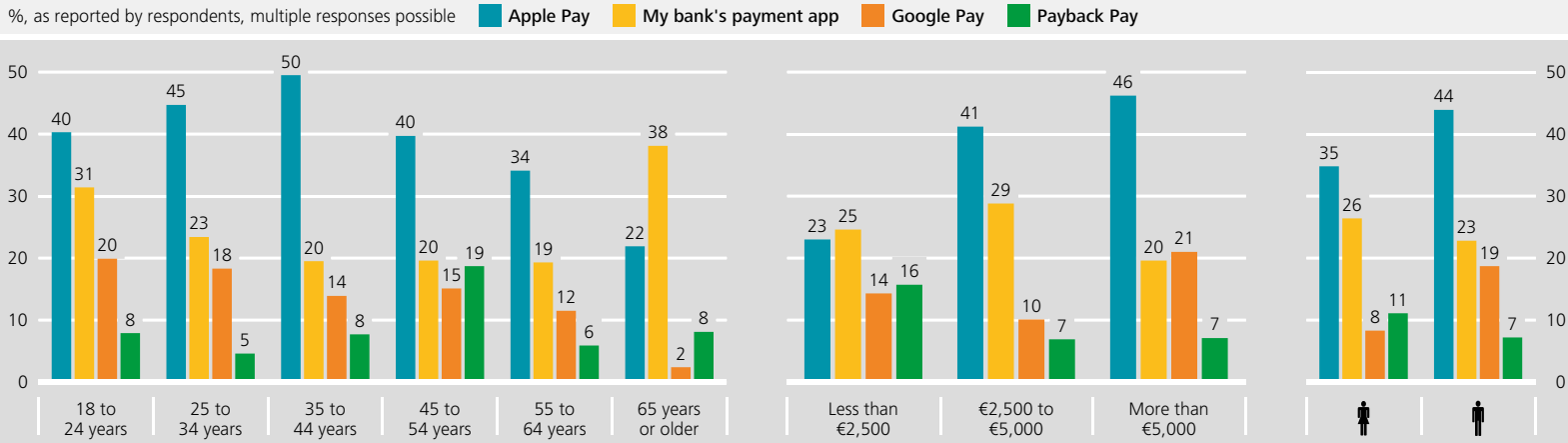
Fig. A.4.3.2



Basis: All respondents (n=5,698). Question: "Do you personally own one or several of the following devices?"  
Deutsche Bundesbank

### Usual use of mobile payment methods at the POS by age, income and gender

Fig. A.4.3.3

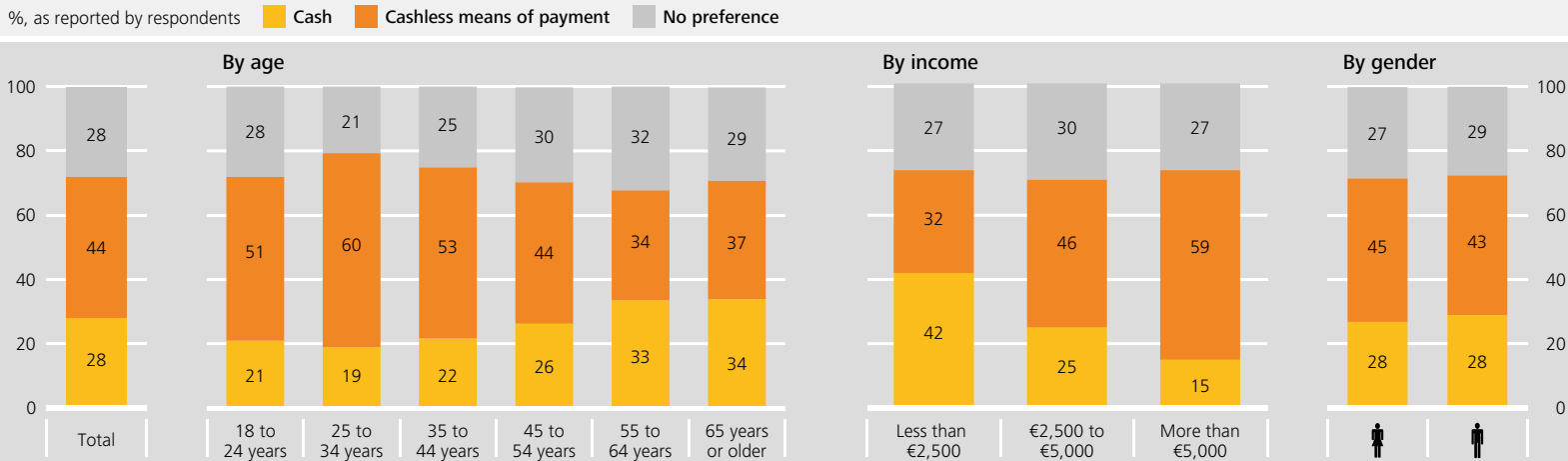


Basis: Respondents familiar with at least one innovative payment method and who have paid at the POS using their smartphone. Question: "When paying with your smartphone, smartwatch or fitness wristband at the point of sale in a store, which payment method do you usually use?"

Deutsche Bundesbank

### Preferred means of payment by age, income and gender

Fig. A.5.1.1a



Basis: All respondents (n = 5,698). Question: "If you were offered a choice of payment methods in-store, which would you prefer?"

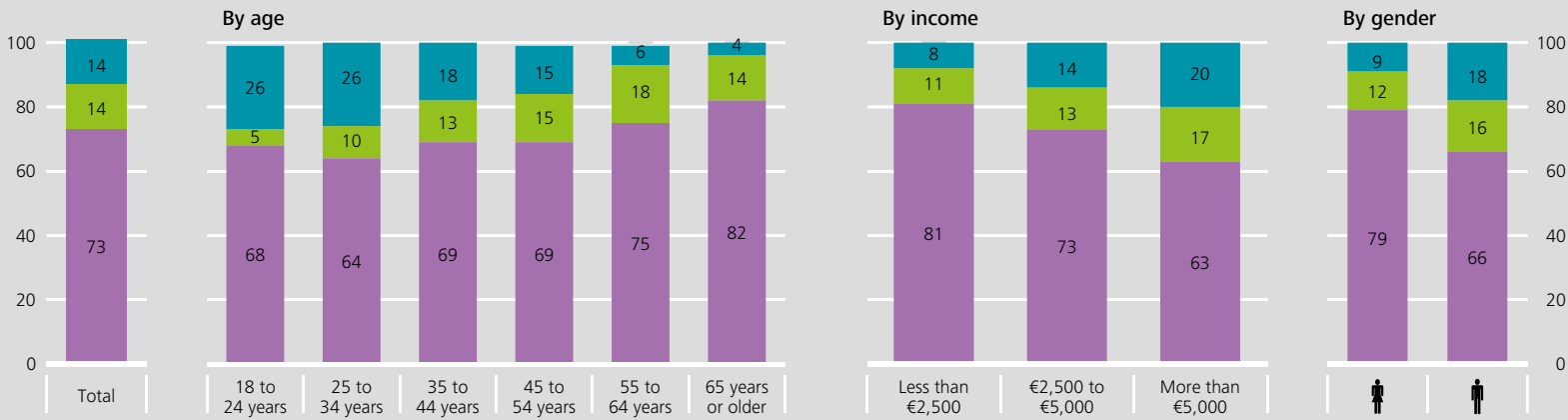
Deutsche Bundesbank

### Preferred means of payment by age, income and gender – cashless payments

Fig. A.5.1.1b

%, as reported by respondents

Debit card Credit card Mobile payment



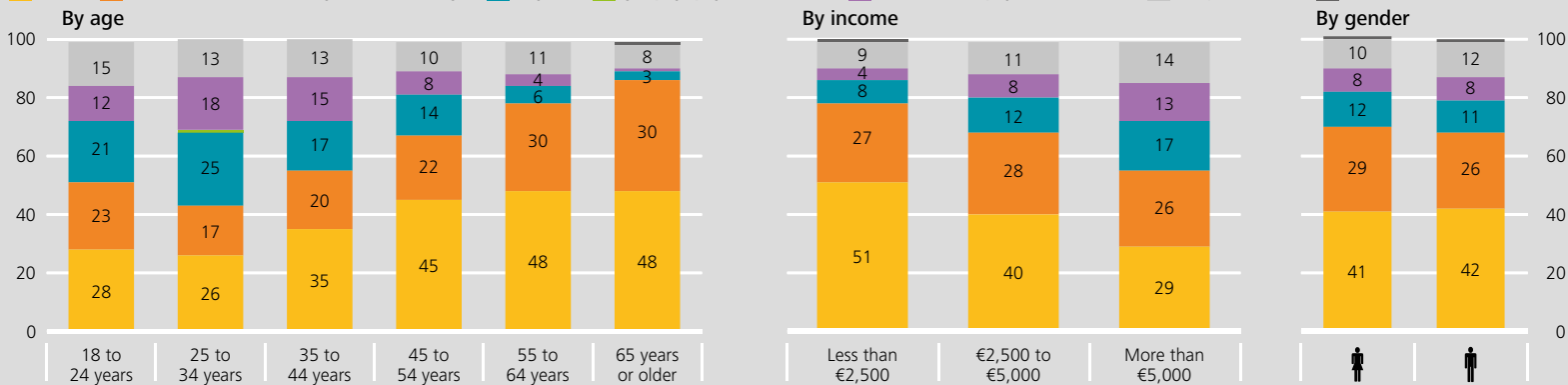
Basis: Respondents who prefer cashless means of payment or who have no clear preference (n = 4,107). Question: "Which of these cashless means of payment do you prefer?"  
Deutsche Bundesbank

### Preferred means of P2P payment by age, income and gender

Fig. A.5.1.2

%, as reported by respondents

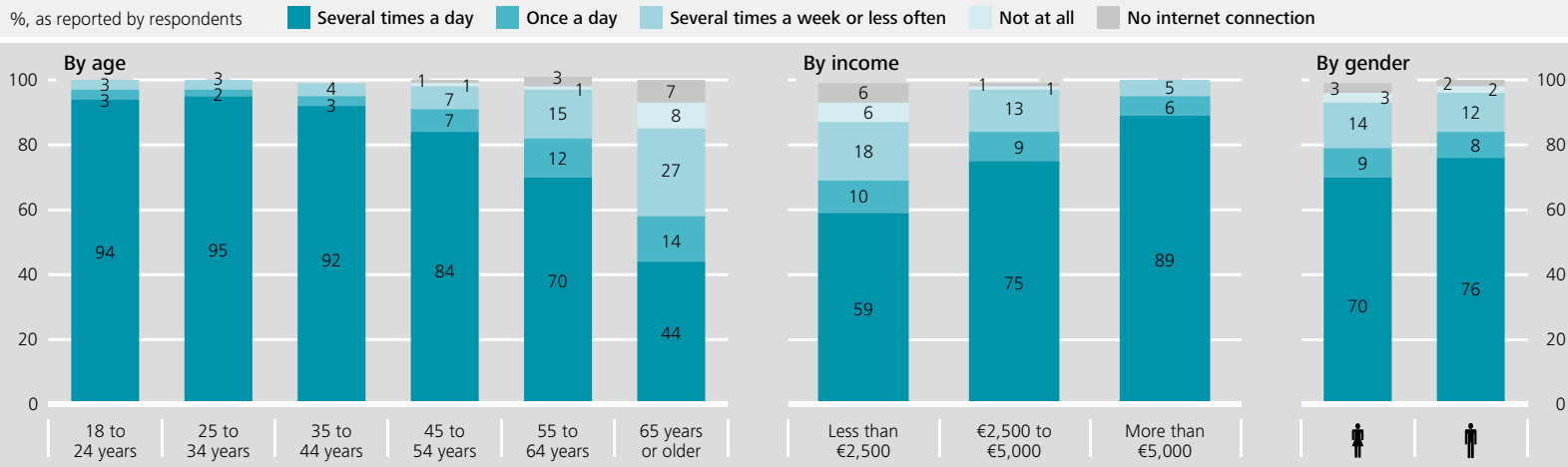
Cash Credit transfer (including online banking) PayPal giropay/paydirekt/Kwitt Other online payment method No preference Don't know/No answer



Basis: All respondents (n = 5,698). May fail to sum to 100 due to rounding. Question: "If you wanted to give money to family, friends, or acquaintances, what would be your preferred means of payment?"  
Deutsche Bundesbank

### Internet use by age, income and gender

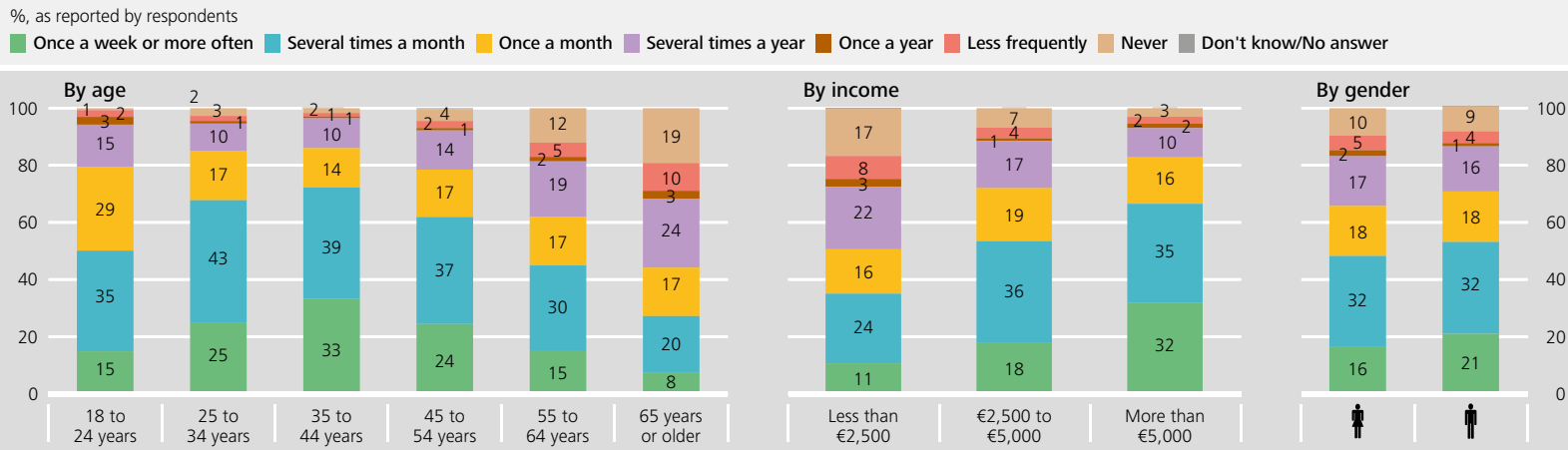
Fig. A.5.2.3



Basis: All respondents (n=5,698). May fail to sum to 100 due to rounding. Question: "Thinking about the past three months, how often, if at all, did you use the internet?"  
Deutsche Bundesbank

### Internet purchase frequency by age, income and gender

Fig. A.5.2.4

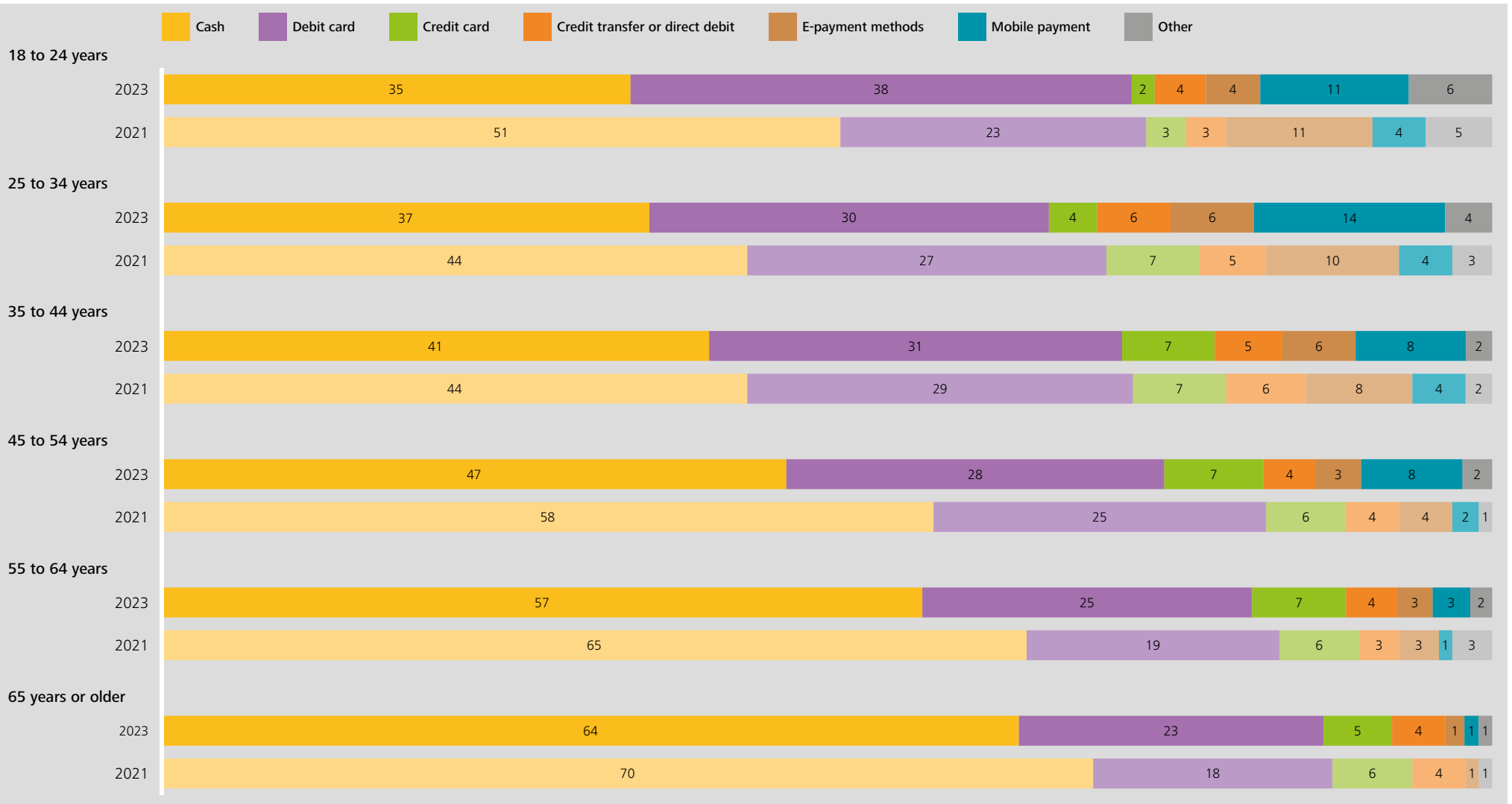


Basis: Respondents who have used the internet in the last three months (n=5,390). May fail to sum to 100 due to rounding. Question: "How often do you shop online? Please also think of purchases made using an app."  
Deutsche Bundesbank

### Use of payment instruments by age group

Fig. A.5.3.1

Percentage of transactions, as reported in payments diary

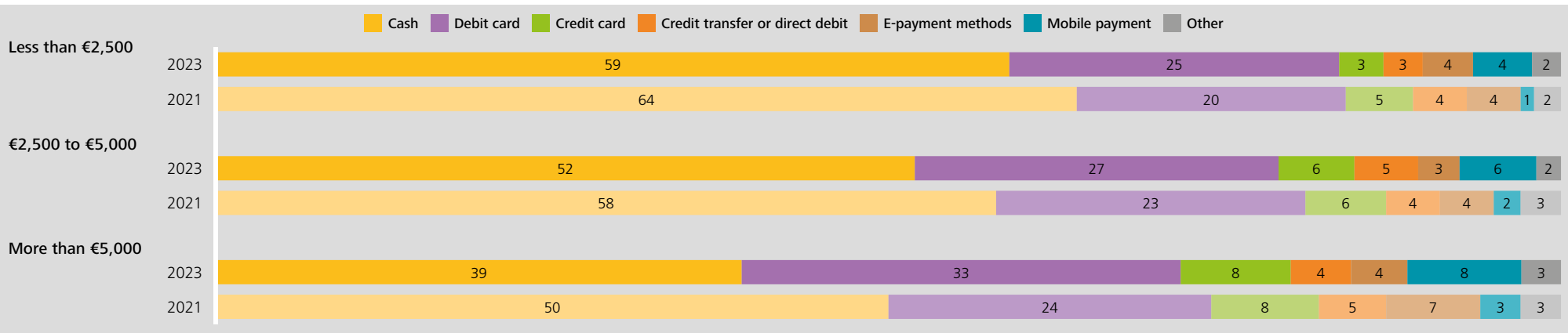


Basis: All transactions (2023: n=15,500, total value: €667,297; 2021: n=15,482, total value: €605,251).

### Use of payment instruments by net household income

Fig. A.5.3.2

Percentage of transactions, as reported in payments diary



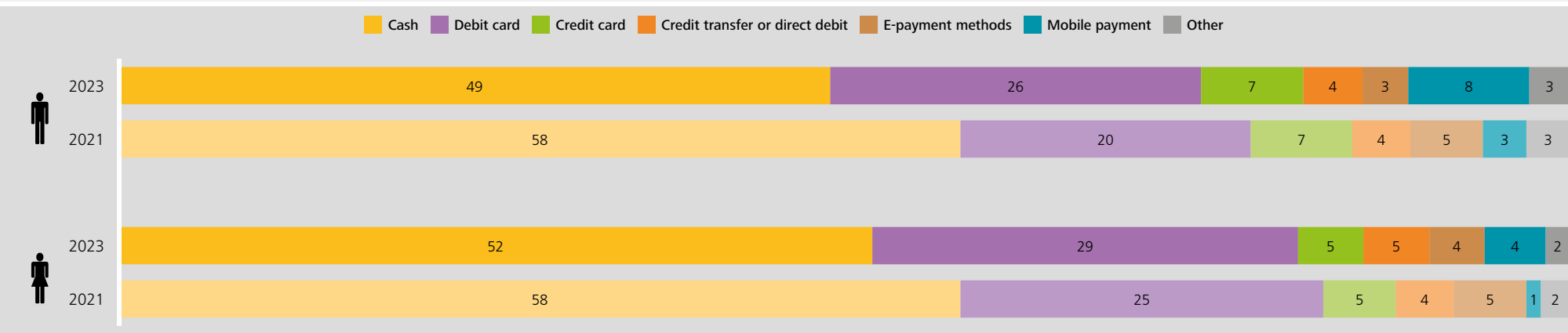
Basis: All transactions (2023: n=15,500, total value: €667,297; 2021: n=15,482, total value: €605,251).

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### Use of payment instruments by gender

Fig. A.5.3.3

Percentage of transactions, as reported in payments diary



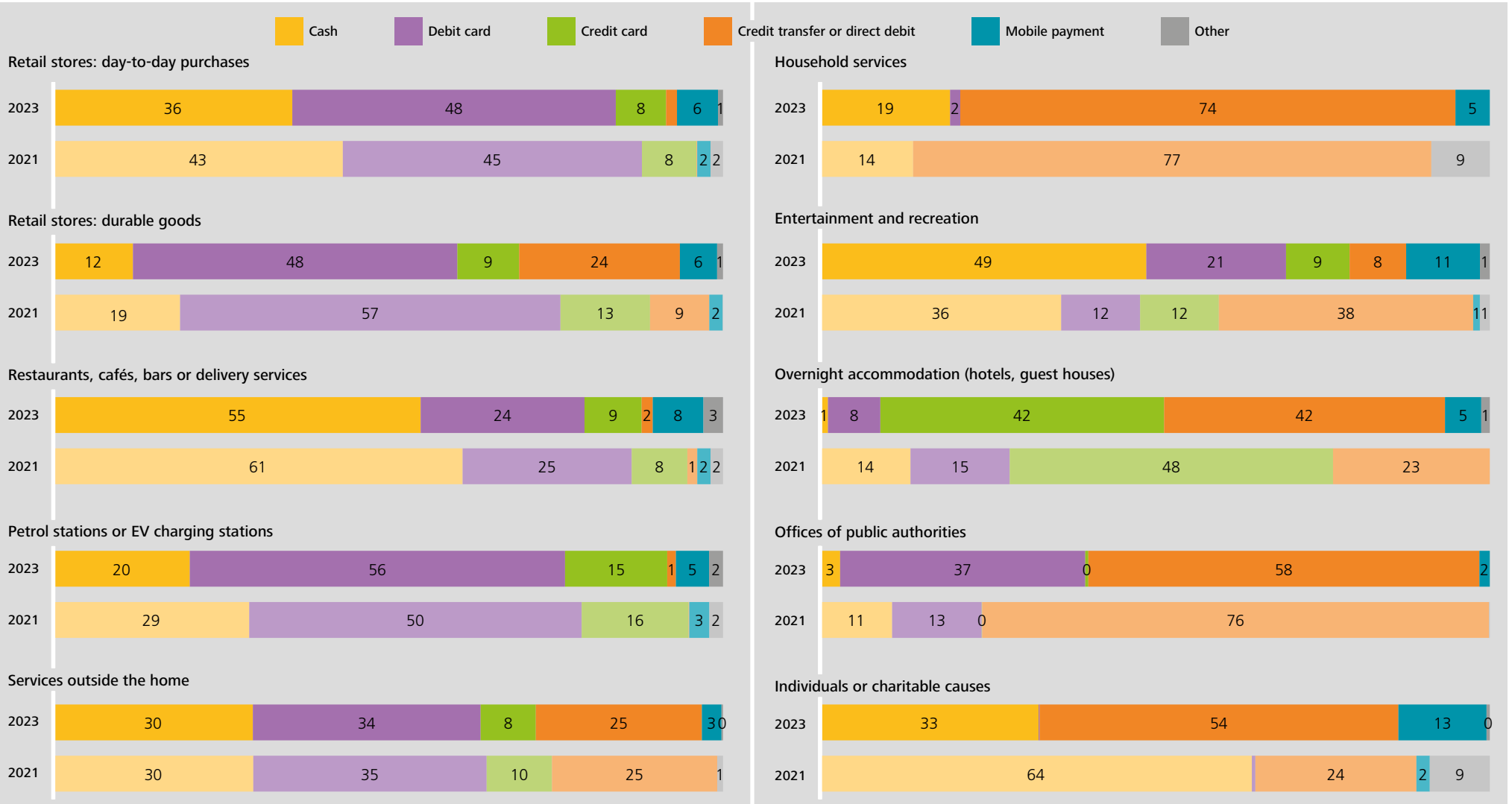
Basis: All transactions (2023: n=15,500, total value: €667,297; 2021: n=15,482, total value: €605,251).

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### Use of payment instruments by expenditure type and location

Fig. A.5.4.1

Percentage of turnover, as reported in payments diary

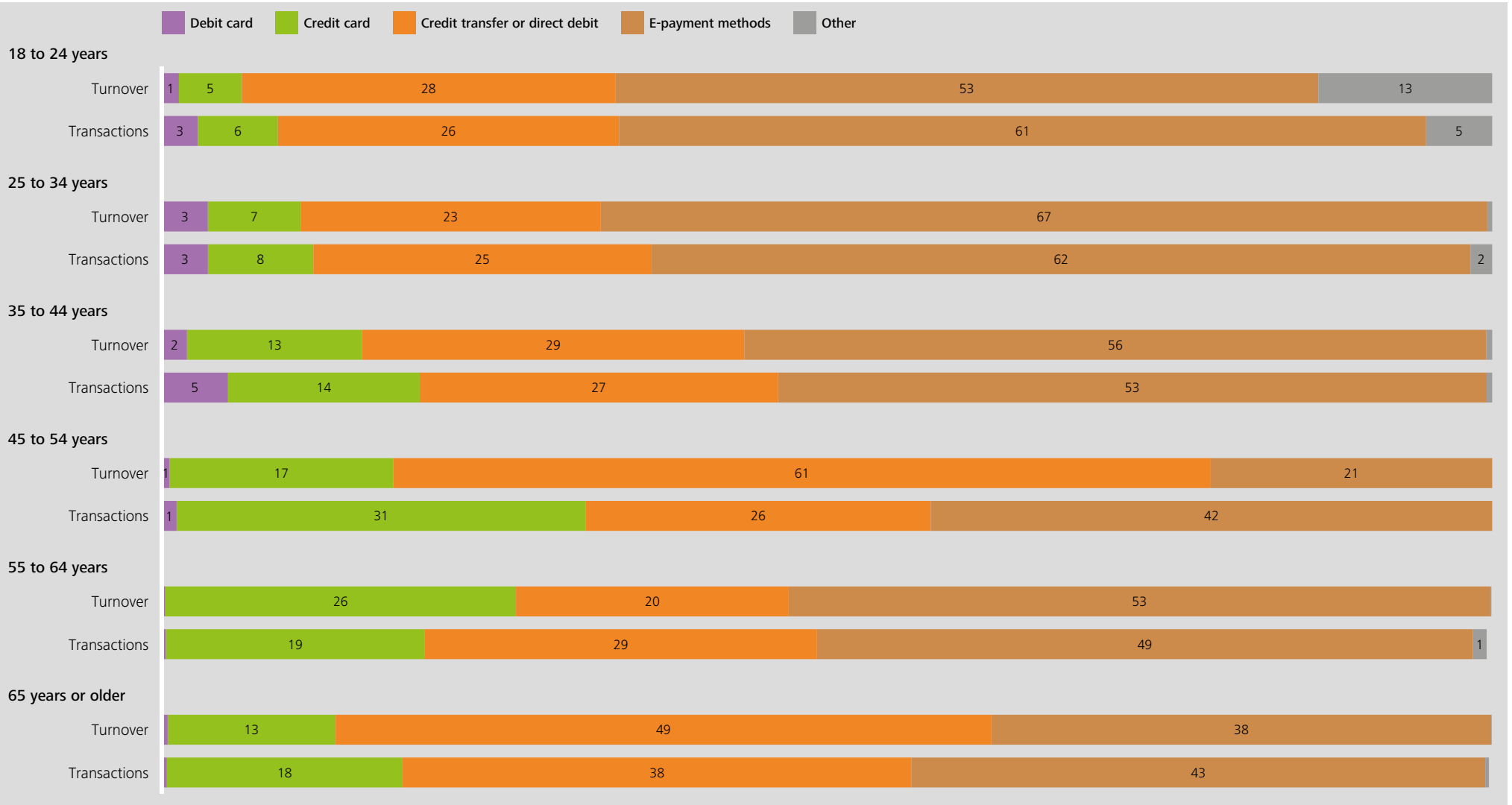


Basis: All transactions in the payments diaries.  
Deutsche Bundesbank

### Use of payment instruments online by age group

Fig. A.5.4.4

%, as reported in payments diary



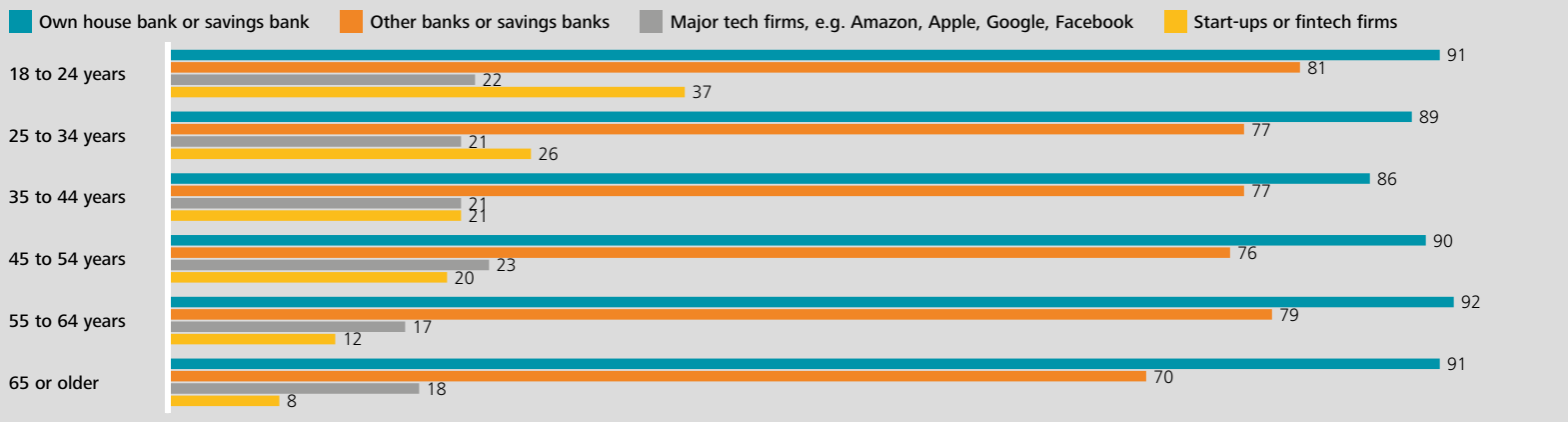
Basis: Online transactions (n = 1,055, value = €97,675). May fail to sum to 100 due to rounding.  
Deutsche Bundesbank



### Responsible handling of payment data by age group

Fig. A.6.1.1

%, as reported by respondents



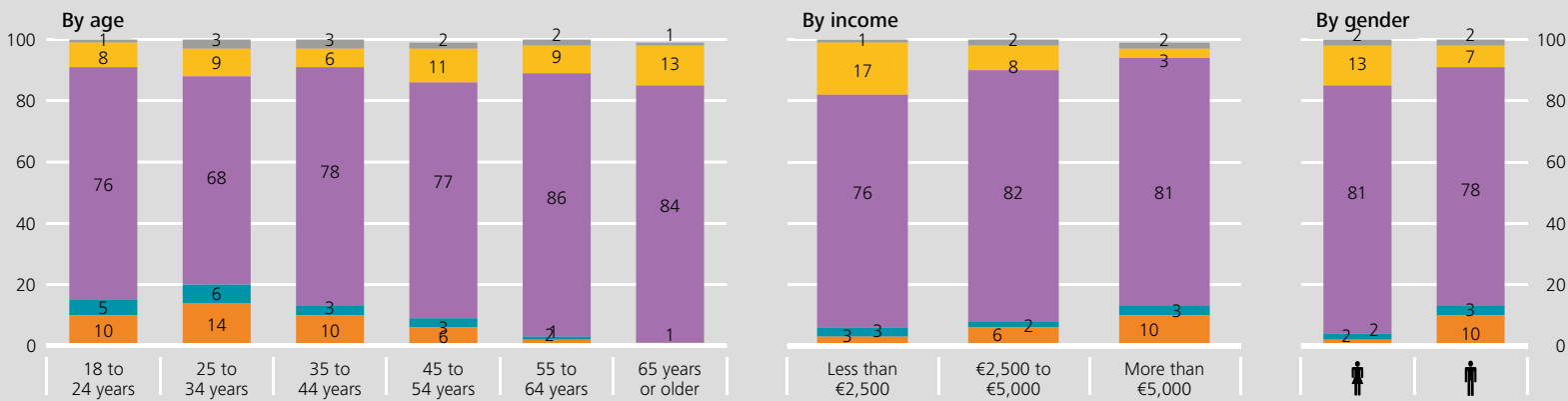
Basis: Respondents in subgroup B (n=2,835). Question: "I am now going to name various institutions. Do you believe that they handle your payment data responsibly?" Answer: "Yes."  
Deutsche Bundesbank

### Potential purchase and use of crypto tokens by age, income and gender

Fig. A.6.2.3

%, as reported by respondents

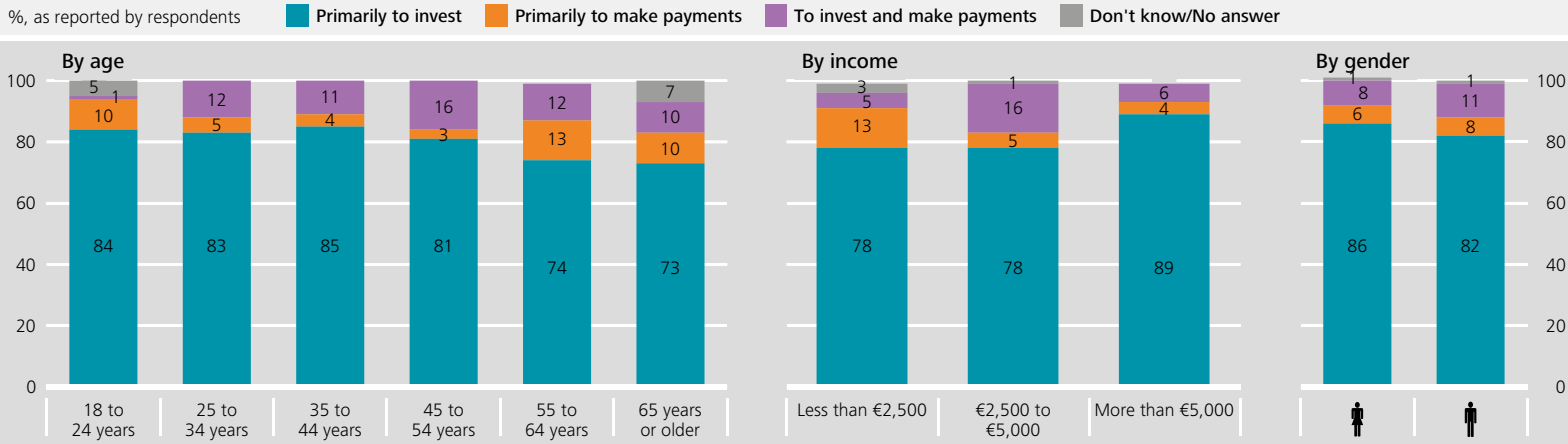
Purchased/paid with Purchase/use planned Purchase/use not planned Never heard of crypto tokens Don't know/No answer



Basis: All respondents (n=5,698). May fail to sum to 100 due to rounding. Question: "Crypto tokens such as Bitcoin have attracted regular attention over the past few years. Which of the following statements applies to you personally?"  
Deutsche Bundesbank

### Primary use of crypto tokens by age, income and gender

Fig. A.6.2.4



Basis: Respondents who have purchased or paid with crypto tokens before (n=334). May fail to sum to 100 due to rounding. Question: "You stated that you have purchased or used crypto tokens for payments in the past. Can you tell us the main reason for this?"

## Glossary

### ATM

Automated teller machine.

### Cash Group

Association of credit institutions which provide customers of the banks that are part of it with a network of cash withdrawal points that can be used free of charge. See <https://www.cashgroup.de/> for a list of members.

### CashPool

Association of credit institutions which provide customers of the banks that are part of it with a network of ATMs that can be used free of charge. See <https://www.cashpool.de/> for a list of members.

### Credit card

Payment card which normally involves an account being debited after a certain period of time has elapsed; if used several times, this entails either the deduction of a single amount or debiting in instalments. Payment to the retailer is guaranteed. Credit cards are marked with the word “credit”.

### Credit transfer

Transfer of funds, initiated by the payer, to the payee’s payment account.

### Contactless card/contactless function

Payment card (debit or credit card) for which the data required to make a payment are transferred via NFC just by holding the card close to the card reader, without the card needing to make physical contact with the payment terminal. After a certain number of transactions have been made, or once a set payment amount has been reached, users may be asked to enter their PIN for security purposes. If the card is inserted during the next payment and the PIN is entered, this will reset the corresponding counter so that payment without a PIN is once again possible.

### Customer card with a payment function

A customer card or reward card issued by a retailer that can be used to make payments. Payment itself is usually made at a later point in time, either by direct debit or charging the amount to a credit card.

### Debit card

Payment card linked to a current account that is debited immediately after payment. Payment to the retailer is guaranteed. Debit cards are marked with the word “debit”. These are primarily girocards, which are often still referred to as “EC cards”. Girocard is the debit card scheme operated by the German banking industry for use at ATMs and for payments in Germany. For use abroad, co-branding with one of the debit card brands of the international card systems (Maestro (discontinued) or V Pay or Mastercard Debit or Visa Debit) is generally required. For some time now, some payment service providers have also offered debit cards without a girocard function. They typically have either a Visa or MasterCard Debit function.

### Direct debit

Instruction given by the payee to debit the payer’s payment account, with the latter’s consent.

### E-payment method

Procedures based on credit transfers using the payer’s online banking setup (e.g. giropay/ paydirekt, Klarna/Sofort credit transfer) as well as special electronic payment methods via the internet that allow the primary payment to be processed within a proprietary network (e.g. PayPal) and are linked to the payment account or a given payment card.

### Fintech

The term “fintech” is a portmanteau of “financial services” and “technology” and refers to enterprises which provide specialised financial services using modern technology. The term can also be used to refer to technologies used in the financial sector.

### **Instant payment**

Cashless euro payment transactions that are settled around the clock within a matter of seconds.

### **Means of payment/payment methods/payment instruments**

These include cash and all cashless payment methods (credit transfers, direct debits, card payments) as well as services based on them, such as e-payment and mobile payment methods.

### **Canteen or stadium card**

Cards that can be issued and used for a specific purpose in a set environment. This includes cards for staff canteens.

### **Mobile payment methods/mobile payment**

This includes payment with a mobile phone either in-store or not in-store as well as the use of apps to send and receive money without entering an IBAN. The underlying transaction for a mobile payment is usually a credit transfer, direct debit or card payment.

### **Near-field communication (NFC)**

This is a standard technology for the contactless transmission of data over a distance of a few centimetres.

### **Online banking**

Conducting banking transactions over the internet. Banks offer websites/portals and apps which customers can use to manage their current account online.

### **Person-to-person (P2P) payments**

This refers to payments between individuals. In previous studies, this was referred to as "sending money between family, friends, and acquaintances".

### **SEPA**

The Single Euro Payments Area (SEPA) is an area where a set of uniform standards for cashless euro payments apply. In addition to all Member States of the European Union (EU), it also includes the states of the European Economic Area (EEA) – Iceland, Liechtenstein and Norway – as well as Switzerland, Monaco, San Marino, Andorra, the Vatican City State and the United Kingdom.

### **Two-factor authentication**

Also referred to as "strong customer authentication". Since the introduction of the EU's second Payment Services Directive, online and card payments generally have to be confirmed by two independent authentication factors from a range of three categories: knowledge (e.g. static PIN or password), possession (e.g. mobile phone, card, TAN generator) and inherence (e.g. fingerprint, face image).

### **Wallet/digital wallet**

Digital equivalent of a wallet or purse in an app on a smartphone or wearable. Payment cards, for example, can be added to such wallets.

### **Wearable**

These include, for example, wristbands or watches equipped with smart technology. Some of these devices support NFC-enabled, contactless payments.

## Imprint

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Authors: Niklas Ego, Dr. Martina Eschelbach, Lukas Korella,  
Dr. Kerstin Lorek, Julien Novotny, Dr. Susann Sieber

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Contact: [zahlungsverhalten@bundesbank.de](mailto:zahlungsverhalten@bundesbank.de)

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